UNITED NATIONS DEVELOPMENT PROGRAMME

THE GAMBIA

ENHANCING RURAL CAPACITIES THROUGH LIVESTOCK DEVELOPMENT
GAM/93/004

REPORT OF THE EVALUATION MISSION

NOVEMBER 1997

Dr. Della McMillan, Team Leader, UNDP/NY
Mr. Omar Jallow, Consultant, Government of The Gambia
Mr. Herman Mulder, Consultant, Federation of Switzerland

BUURSINK

INTERNATIONAL CONSULTANTS
NATURAL RESOURCE MANAGEMENT AND ENVIRONMENTAL ASSESSMENT
1436 LAYMAN STREET, MCLEAN, VA 22101. USA. PHONE: 1 703 847 2604 FAX: 1 703 847 2605

LIST OF ACRONYMS.....iii

INTRODUCTION.....iv

I. EXECUTIVE SUMMARY.....1

II. PROJECT CONCEPT AND DESIGN.....8

A. Context of the Project.....8
B. Project Document.....9
1. The Problem and the Technical Approach.....9
2. Objectives, Indicators, and Major Assumptions.....10
3. Beneficiaries.....11
4. Modalities of Execution.....12
a. Partnership Arrangements.....13
b. Project Inputs.....13
c. Project Budget and Budgetary Procedures.....13
d. Project Management Structure.....14

III. PROJECT IMPLEMENTATION.....14
A. Quality of Monitoring and Backstopping.....14
B. Activities.....15
C. Budget.....16

IV. PROJECT RESULTS.....17
A. Outputs.....17
B. Immediate Objectives.....27
C. Development Objectives.....28

V. CONCLUSIONS.....29
A. Findings.....29
B. Assessment.....30
1. Relevance.....30
2. Performance: Efficiency and Effectiveness.....31
3. Success: Capacity Building, Environmental Impact and Sustainability.....31

VI. RECOMMENDATIONS.....33

VII. LESSONS LEARNED.....37

LIST OF TABLES AND FIGURES

Figure I.1: Interlinking Spheres Necessary to Support Sustainable Agriculture.....iv
Figure II.1: GAM/93/004 Planned Partnership/Implementation Structures.....12
Figure IV.1: GAM/93/004 Project Model of Institutional Arrangements for Field Interventions.....21
Figure VI.1: Interlinking Spheres Necessary to Support Sustainable Agriculture.....33

LIST OF ANNEXES

Annex 1: Summary Tables Methodology
Table 1.1: Summary of List of Persons Interviewed.....39
Table 1.2: Summary of Project Activities Observed as Part of the Evaluation of GAM/93/004.....40

Annex 2: Summary Tables GAM/93/004 Project Activities
Table 2.1: Summary Table of GAM/93/004 Activities.....41
Table 2.2: Summary Table of GAM/93/004 Activities in the 20 Project Villages.....50

Annex 3: Summary Tables on Implementation
Table 3.1. Budget Revisions Made During Project Revision.....51
Table 3.2. Expenditure Statement Against Budget, Department of Livestock Services.....52
Table 3.3. Expenditure Statement Against Budget, VSF/Swiss (subcontractor).....54
Table 3.4. Expenditure Statement Against Budget, UNDP.....55

Annex 4: List of Persons Interviewed.....57
Annex 5: Program and Itinerary of the Evaluation Mission.....60
Annex 6: List of References Consulted.....63
Annex 7: Consultant's Terms of Reference.....70

Annex 8: GAM/93/004 Other
Annex 8.1 Assessment of Farmers' Livestaock Problems and Needs in CRD South.....73
Table 8.1 GAM/93/004 YBK Livestock Project Farmer Training Program 1996 / 1997.....74
Table 8.2 GAM/93/004 Training Attendance Record.....75
Annex 8.2 The Role of the Auxiliaries in the Project Farmer Training Model.....76

LIST OF ACRONYMS

ACU	Agricultural Communications Unit
ADB	African Development Bank
CBO	Community Based Organizations
CRD	Central River Division
DAC	Divisional Agricultural Coordinator
DDS	United Nations Volunteers Domestic Development Service Fieldworkers
DCD	Department of Community Development
DLS	Department of Livestock Services
DVO	Divisional Veterinary Officer
EDF	European Development Fund
ERP	Economic Recovery Programme
FAO	United Nations Food and Agriculture Organization
GAM/93/004	Enhancing Rural Capabilities through Livestock Development
GAM/86/006	Rangeland and Water Development Project
GAM/87/004	Sheep and Goat Production
GAM/91/002	Improving Extension Services for Women's Livestock
GAMVET	Official name of the semiautonomous supply company for Veterinarian Drugs
GOTG	Government of The Gambia
ITC	International Trypanotolerant Center
LA	Livestock Assistant
NEX	National Execution (of UNDP-funded Projects)
NGO	Non-governmental Organization
PARC	Pan-African Rinderpest Campaign
PD	Project Document (for GAM/93/004)
PPER	Project Performance Evaluation Report
PSD	Programme for Sustained Development
TOR	Terms of Reference (for the Evaluation Mission)
T&V	Training and Visit (Extension Model)
UNDP	United Nations Development Programme
URD	Upper River Division
USAID	United States Agency for International Development
VHCC	Village Health Care Center
VISACA	Village Savings and Credit Associations
VSF/CH	Vétérinaries Sans Frontières - Swiss
VSF/Swiss	Vétérinaries Sans Frontières - Swiss
WID	Women in Development
YBK	Yoro Beri Kunda

INTRODUCTION

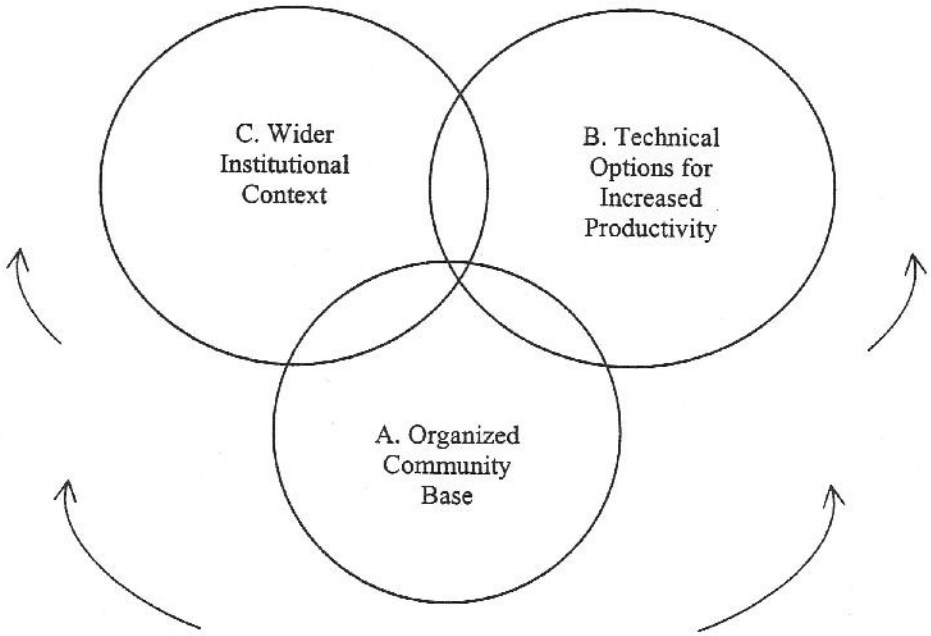
The GAM/93/004 Project, "Enhancing Rural Capacities through Livestock Development," was designed to assist the Department of Livestock services in the developing and testing of a new participatory methodology for intervention as well as for the creation of new technologies that would strengthen that intervention. This same participatory process created a complex set of new partnership arrangements between the local communities, the Department of Livestock Services, the NGO sector, UNDP, and its related UN agencies. The soundness of this approach is supported by a concept of sustainable agricultural development that requires strong synergies between "outputs" in three interrelated spheres. These interrelated spheres include (Figure I.1):

1. The wider institutional context within which agricultural production and product distribution takes place, including policy and regulatory and legal framework, implementing institutions, distribution of inputs and availability of services, markets, and information;

2. The crop, livestock, and forestry production and water and soil management and conservation options that farmers have within a given set of environmental circumstances;

3. The local social context within which farmers: (a) produce and sell their products; and (b) communicate their concerns, needs, and goals within the wider institutional context for the purpose of shaping an appropriate institutional setting and technology options.

Figure I.1. Interlinking Spheres Necessary to Support Sustainable Development.



Sustainable development takes place when the activities of the different actors (farmers, farm associations, NGOs, Government agencies, the private sector, and foreign aid donors) that produce these different outputs intervene in ways that overlap. Any strategy to achieve this goal must address the need for new:

- **PRODUCTS** (technology, capacity building), and

- **PROCESSES** (new partnership arrangements, new management styles, new models of government administration). The same process must be flexible enough to anticipate the need to modify processes in ways that build on a change in the capacity of any one sphere.

For GAM/93/004 this meant in concrete terms:

- that various **PRODUCTS** (improved LA and farmer training, materials and facilities, strengthened drug supply, and improved livestock technology) would have to be linked...

- to the necessary **PROCESSES** to sustain and develop them. Especially important would be the development of a new model for participatory livestock services that could link livestock owners to the Department of Livestock Services with the new private veterinary drug company (GAMVET) as well as a host of other other private sector, non-governmental organization (NGO) and UN (UNDP, United Nations Volunteers, Domestic Development Services Fieldworkers) actors.

The principal goal of this report (as outlined in the evaluation terms of reference [Annex 7] and the UNDP Evaluation Guidelines is to evaluate the project in terms of achieving its original objectives, outputs, and activities.

At the same time, we feel that it is extremely important to assess some of the project's achievements in developing participatory extension methodologies and innovative partnership arrangements since, as indicated above, these processes form the core for the sustainability of the activities. We feel that these "processual" activities should have been designed as a separate project objective.

Based on this conceptual approach, the three person evaluation team interviewed project participants connected with specific project activities at three different levels (Annexes 1 and 2; Tables 1.1 and 1.2). These levels were:

1. senior administrators, staff, and policy makers connected to the sector and the three principal partners (UNDP headquarters, DLS headquarters, and the Swiss Government);

2. village-level and division-level stakeholders (farmers, private sector institutions [GAMVET pharmacies] and traders [butchers], community leaders, Livestock

Assistants, Animators, NGO community workers and divisional leaders);

3. the direct implementers at the principal project site (the YBK Training and Demonstration Center).

Over 118 individuals in 11 villages and towns were interviewed within the project area.

Team leader, Dr. Della McMillan, is a consulting anthropologist associated with the University of Florida (Gainesville, Florida, U.S.) and Buursink International Consultants (MacLean, Va.). She has extensive experience with research and evaluation of agricultural projects in West Africa. Mr. Omar Jallow is an animal scientist and a former lecturer in animal production at the Gambia Livestock Training School. He has more than 10 years of research, management, and administrative experience on some of the country's largest bilateral and multilateral funded agricultural and livestock projects. Mr. Herman Mulder is a Senior Livestock Specialist with the Swiss NGO, Intercooperation; he has administered large bilateral funded livestock projects in Africa, Asia, and the Caribbean.

One of the most gratifying and unique aspects of this evaluation was the close collaboration we enjoyed in developing the main observations, conclusions, and recommendations. Our visit up-country to the YBK Training and Demonstration Site was organized by the acting DVO Abdoulie Manjang and VSF subcontractors, Mr. Alistair Short and Dr. Marc Bono, who graciously submitted to long hours of interviews and collaborative extrapolation of "lessons learned." We experienced the same type of open collaboration from Dr. Oumar Touray and other members of the senior management team at the Department of Livestock Services headquarters office in Abuko (Banjul). Special thanks also are due to the UNDP Resident Representative, Mrs. Zahra Nuru, and Project Coordinator Mrs. Beatrice Allen for their spirited championing of the need to "be original, and go beyond" the norm . Also in our debt are Mr. Alistair Short and Mrs. Mariama Taal-Njie for compiling the various tables and documents that provide the basis for our analysis and Mr. Ausumana Sanneh, our loyal driver. Others who should be recognized for their contributions to the final product include Mrs. Yolaine Michaud (Programme Associate, West Africa Division, UNDP-New York), Mr. Nyarko-Mensah (Deputy Resident Representative, UNDP, Banjul), Mr. Seikou Sanyang (Project Coordinator, GAM/93/004), and Mr. Rodney Stubina (University of Florida).

I. EXECUTIVE SUMMARY

A. The Project

The official project document for the GAM/93/004 Project, "Enhancing Rural Capacities through Livestock Development," was signed by the Government of The Gambia (GOTG) and the United Nations Development Programme (UNDP) on May 12, 1994. Due to a major change in the Gambian Government in July 1994, the implementation of the main activities at the principal project site (the Central River Division of The Gambia) was delayed until the beginning of 1995.

GAM/93/004 represents one of the first attempts by the Gambian Department of Livestock Services (DLS) to develop a new model for decentralized livestock extension services that could be sustained within the post-structural adjustment macro-economic setting that reduced DLS staff and their direct involvement in commercial ventures. In this revised economic setting, the DLS was expected to facilitate joint initiatives in collaboration with local communities, the private sector, and NGOs.

GAM/93/004 is the fourth livestock project under the UNDP program in The Gambia. It was anticipated that the project would collaborate closely with the GAM/91/002, "Improving Extension Services for Women's Livestock," which is a sub-component of the National Women in Development Project (WID). The project is located in the Central River Division (CRD) and based at the Yoro Beri Kunda (YBK) Training and Demonstration Center of the Department for Livestock Services.

The duration of the Project is three years; thus it is due to phase out by the end of December 1997. GAM/93/004 is funded by UNDP ($US 84,000, 7%), the Swiss government ($US 1,117,000, 93%, under the Compensatory Financing Program), and The Government of Gambia ($US 85,000, in kind).

B. Project Objectives

The project was designed to build upon the successful experiences of the previous two UNDP livestock development projects, GAM/86/007, "Rangeland and Water Development for Livestock Production at Niamina Dankunku and Niamina West," and GAM/87/004, "Development of Sheep and Goat Production." The lessons derived from these two earlier projects included the need for livestock extension programs: (a) to address gender and equity issues in project design, implementation, and evaluation; and (b) to consider the critical importance of linking production and technology development with upstream inputs and services and downstream processing and marketing.

To address these core issues, the project was designed to coordinate and build dynamic functional relationships with other development projects, related government departments, and private and non-governmental organizations active in the sector.

The chief development objective of the project is to enhance the living standards of the rural communities on a sustainable basis through the development of livestock production and marketing.

The immediate project objectives are:

1. to improve the health and nutritional status of cattle, small ruminants, poultry, equines, and donkeys;

2. to improve the processing and marketing of livestock products; and

3. to determine the appropriate mechanisms for savings mobilization and credit formation among the livestock owners and producers to enhance commercialization of the livestock sub-sector.

To fulfil these objectives, the project aspired to develop the YBK Training and Demonstration Center into a major regional resource base for the livestock sector. With the YBK Training and Demonstration Center as its base, GAM/93/004 was designed to develop a participatory extension approach based on an assessment of the needs of the farmers and the field staff of the Department of Livestock Services (Livestock Assistants).

C. Evaluation

The external evaluation team was mandated to do an end of term assessment of GAM/93/004 with a view to obtaining recommendations regarding the technical, institutional, and financial sustainability of the ongoing programs. It is expected that these recommendations would guide future planning for UNDP investments in the livestock sector and the forthcoming Household Food Security Programme.

The persistent dependence of The Gambia on foreign aid to fund the majority of its development programs underlines the critical importance of sustainability. Therefore, the evaluation team approached its mission in terms of assessing the project's contribution to sustainable agricultural development. This approach took as its point of departure the idea that any long-term process of sustainable agricultural development would require strong synergies between outputs in three interrelated spheres:

1. the wider institutional context within which the development programs take place;

2. the technical options that farmers have within a given set of environmental circumstances; and

3. the local social/cultural context and community development systems and organizations which farmers use.

Sustainable development takes place when the activities of the different actors in the sector, which produce these different "outputs", intervene in ways that overlap.

Strategies to achieve this goal must address the need for new PRODUCTS (technology, capacity building) as well as new Development PROCESSES (new partnership arrangements with an increasing diversity in partners, new management styles based on changing roles of actors in the sector). The same strategies must be flexible enough to anticipate the need to modify processes in ways that build on changes in any one of these spheres. The evaluation team feels that it is extremely important to place this assessment of GAM/93/004 within the context of both the "product" as well as the "process" interpretation of sustainable agricultural development.

D. Overall assessment

Comparing GAM/93/004's achievements against stated objectives and outputs, the team reached a positive overall assessment. The project has achieved an important part of its stated outputs and was flexible enough to adapt to emerging felt needs. Implementation was not always easy, nor collaboration always smooth. In spite of this, the strong commitment of the principal partners (DLS, VSF/Swiss, and UNDP) enabled the project to overcome most of these problems.

GAM/93/004 as an innovator. In many respects, GAM/93/004 is an innovative experiment. Specifically:

1. as a model of a diversified partnership between Government, represented by the Department of Livestock Services, a major international NGO (Vétérinaires Sans Frontières-Switzerland [VSF-Swiss]), a private sector company (GAMVET), the United Nations Volunteers Domestic Development Service (DDS) Fieldworkers, and the United Nations Development Programme (UNDP);

2. as a model for a participatory extension approach supported by the development of needs based, situation specific, animal production options;

3. as an integrated approach linking livestock production with upstream inputs and services and downstream processing and marketing; and

4. as a new model for third party cost-sharing in the main finance of the project.

The evaluation team considers these innovative characteristics as the strongest, most positive aspect of the project. Such innovation, however, requires adequate mechanisms to guide, coordinate, and monitor. This was not clearly articulated in the project document. One serious consequence of this omission was that the project did not make an immediate inventory of institutions and organizations already established in the project area and, as a result, was too isolated in its implementation.

GAM/93/004 as an Implementor. The DLS is responsible for the implementation of the project and is supported on the basis of a sub-contract by an international NGO, VSF-Swiss, for the implementation of field activities. For several of the activities, a strong interdependency exists between the DLS and VSF-Swiss (maintenance and operation of vehicles; rehabilitation of Divisional Pharmacies, employment and training of pharmacists, etc.).

In such situations, planning, monitoring, and reporting become extremely important to ensure a consensus of understanding of tasks and responsibilities. The evaluation team finds that although the sub-contractor was quite strong in these aspects, the DLS did not develop the required initiatives in the field. As a consequence, the local leadership of the project was not strong enough and the tools and mechanisms necessary to give the required guidance to the implementing parties by the main partners, DLS and UNDP, were not sufficiently developed. One result was that the role of UNDP became increasingly focused on mediating disputes between partners, consuming staff time well beyond what UNDP project managers normally assign to these duties.

GAM/93/004 as a Technical Resource Base. The project has found its major strength as a technical resource base. There was a universal consensus among the farmers, butchers, and DLS Livestock Assistants (LAs) that we interviewed both individually and in-groups, about the high quality and relevance of the project and the YBK Center's training activities. This includes the training programs, curricula and materials for livestock Assistants, pharmacists and farmers as well as the demonstration sites at the YBK Center. The practical training components on animal treatment at the YBK Center and follow-up at the LA working stations are highly appreciated. Although the time constraints of the field visit did not allow an in-depth analysis of the technical program, the evaluation team offers the following observations as food for thought.

Poultry keeping: This program extends improved practices in preventive health treatments, nutrition, and housing with the objective of developing the extensive "scavenger" poultry system into a semi-intensive backyard poultry keeping. Such intensification is only justified if it leads to economically viable increased production. Our impression is that the local breed might not have the necessary genetic potential for production. To offset this, the project could attempt some trials and demonstrations to introduce more appropriate backyard poultry breeds or to support genetic upgrading of the local stock through a cockerel exchange program. Market linkages to explore the economic viability of these improved husbandry practices need to be explored.

Compost-pens: The compost pen program promotes improved housing, nutrition, and management of productive cattle, especially in the dry season. The team believes in the potential of this program because it provides a steady cash-income from milk at a time of year when the household needs cash and the workload in agriculture is low. It also reinforces livestock-crop interactions through the production of high quality manure.

Milk processing: Processing of milk is normally a necessity in situations where the surplus is to be marketed. In fact, in the project area there is a shortage of milk for local consumption. Producers compensate with powdered milk. Under these circumstances, milk processing seems irrelevant. The hygiene component, however, is of relevance since it improves milk quality for human consumption.

Meat processing: The technology developed by the project seems highly appropriate. The aim, however, should not be to use the technology to prevent meat spoilage but rather to produce a product with added value for a niche market. To enhance the profitability of meat processing, the project also considers supporting the treatment, manufacturing, and processing of hides and skins for the tourist trade.

Meat slaughtering facilities: As with all physical structures, maintenance is the key element. In this respect, the support of the butcher associations seems to be a promising development.

The activities with GAMVET, rehabilitation of divisional pharmacies and training of pharmacists, have created a commercial distribution network for veterinary drugs in the region. This is a significant achievement in its own right. From the point of view of company development in terms of management, planning, and monitoring, as well as the establishment of proper accounting procedures, however, GAMVET still has a long way to

go. The GAM/93/004-supported management consultant to GAMVET is an important step in the right direction.

E. Sustainability

GAM/93/004 has invested important efforts toward the development of human resources in terms of Livestock Assistant, farmer, butcher and pharmacist training. The evaluation team is of the opinion that this is an important basis for sustainability of the farmer extension program. However, the current system of routing extension messages to village groups through animators who are engaged directly by the project is not sustainable. First, the DLS cannot support the salaries of the animators who do not have the educational level to be LA's; second the professional profile of the LA is not that of a community worker. Hence, the need for greater collaboration with division-level NGOs with experience in community development is apparent.

The Training and Demonstration Center at YBK as currently organized is not sustainable. From the point of view of "software," the necessary skill transfer to the national staff did not occur due to the absence of posting of a national veterinarian and the high turnover and/or frequent long, work-related, absences of the DVO from YBK.

From the point of view of "hardware," past experience has shown that the national budget does not provide sufficient funds for proper operation and maintenance of facilities and equipment.

Regarding GAMVET, the team concludes that GAMVET, as a commercial enterprise is not yet fully sustainable. The late engagement of the management consultant contributed to this. If the Board of Directors takes action on many of the management consultant recommendations at the planned November Workshop and board meeting, the prospects for sustainability can be improved in a relatively short period.

F. Cost Effectiveness/Efficiency

The evaluation team finds that the flow of funds did not pose a constraint for implementation. There was enough flexibility from the donor side for reallocation of funds for new activities which increased the overall relevance of the program and thereby greatly contributed to cost effectiveness. Budget control was efficient and, through coordination with other projects in the sector, some savings were possible. Government financial rules and regulations, however, in some instances prevented the DLS from being sufficiently efficient in implementation (construction, maintenance of vehicles, engagement of consultants, etc.).

G. Recommendations

The short and medium-term actions that are needed to strengthen the sustainability of specific project outputs can be brought together under seven major groups of recommendations.

1. Revise the Project Model for Farmer Training and Strengthening Village Associations

To develop a joint plan for farmer training and for strengthening village based livestock associations, the team recommends that the acting DVO collaborate with Action Aid (the NGO active in 16 of the 20 project villages and approximately 200 villages in CRD) and with the division-level office of the Department of Community Development. As part of this collaboration, it is recommended that the acting DVO discuss the project plan for maintaining the seven slaughterhouses and for acting on the recommendations made by the GAM/93/004-funded credit and marketing study (due in November 1997). The project might also explore the possibility of subsidizing (with some of the remaining project funds) a part of the cost of temporarily absorbing the four trained animators into the program of a local NGO. Special care should be given, however, to consider how this type of cross-hiring might exacerbate any pre-existing gender inequities that might already exist in the NGO's hiring practices.

2. Clarify the YBK Center's Management and Teaching Structure

To maintain the YBK Center's status as a leading regional training and demonstration center, the team recommends that the DLS attempt to clarify the institutional and management structure of the YBK Center by:

a. appointing one national veterinarian to manage the training component (LAs, butchers, pharmacists, farmers) and the clinic;

b. identifying a camp manager with sufficient technical and managerial skills to oversee the operation and maintenance of the Center, management of training and demonstration units;

c. establishing a YBK Management Committee representing the major potential "consumers" of the extension and training products;

d. working with the subcontractor VSF/Swiss to develop a YBK documentation center and plan for managing that documentation facility; and

e. considering the appointment of consultant to design and implement a marketing plan for the Center, its teaching programs, and documentation center.

3. Develop a YBK Camp Management Plan

The acting DVO, national vet, and subcontractor (VSF/Swiss) need to develop a financial management plan that would guarantee the semi-autonomous operation of the YBK Center. This would entail Government permission for the YBK Center to retain all of its generated income.

4. Strengthen the Gender Component of the YBK Training and Demonstration Programs

The DLS should consider developing the YBK Training and Demonstration Center's links with high school and middle schools. These linkages could offer opportunities for schoolgirls to learn about agricultural careers and the livestock sector. Posting a member of the DLS WID project staff to the YBK Center would strengthen these programs.

5. Modify the YBK Technical Programs

The DLS should consider revising the YBK technical programs to include the introduction of appropriate back-yard poultry breeds; the re-orientation of the meat drying program to

target women producers and a quality product with added value for a niche market; and further development of the compost pen and small ruminant production programmes.

6. Reorganize Project Steering Committee and Provide Management Support

UNDP and DLS should consider reorganizing the current system of monthly tripartite meetings into a biannual meeting of the board of project directors. This board would be responsible for sanctioning the annual work plans, budget, and progress reports. This would clarify roles and responsibilities and facilitate the resolution of key issues related to partnership, monitoring, human resource management, and reporting. The project partners should also consider soliciting outside management support to facilitate organizational and institutional development.

7. Encourage GAMVET to Act on the Consultant's Recommendations

GAMVET needs to act on the GAM/93/004 management consultant's recommendations to develop a medium-term strategy on marketing and company development. To increase the efficiency of the drug distribution system, GAMVET might wish to establish closer linkages with village associations, producer associations, and NGO's working in the livestock sector.

8. Extend the Project by One Year

Although major progress has been achieved in each of the project areas, the period of funding was insufficient to fully guarantee the long-term sustainability of the project's major outputs. It is in light of these major achievements and the project's critical importance for the forthcoming "Household Food Security Programme," that the evaluation team recommends that the donors consider funding a one-year extension to enable the project to take action on recommendations 1-7.

The anticipated impact of this one-year extension would be to increase the sustainability of the existing investment tenfold. This tenfold increase would result from more effective dissemination of the project model through Action Aid's existing network of community development workers. It would also allow the DLS to further develop the self-financing arrangements of the YBK Regional Training and Demonstration Center.

The same "bridge funding" would provide the project with the necessary time to consolidate some of its "lessons learned" for curriculum and teacher training into a project model that could be exported to other zones though the "Household Food Security Programme" and activities of the YBK Training and Demonstration Center.

A third potential impact of this funding would be to provide UNDP and DLS a period of time in which to experiment with new management techniques and to clarify the types of complex roles and linkages that are involved in this type of project partnership arrangement. This latter impact is particularly critical since similar arrangements are envisioned for the Household Food Security Programme.

II. PROJECT CONCEPT AND DESIGN

A. Context of the Project

Despite the central importance of livestock in the rural economy of Gambia both before and after the 1968-74 drought, neither the First nor Second Five Year Development Plans (1975/76-1979/80, 1981/82-1985/86) included clear policy objectives or strategies for livestock. During this time period, USAID supported a series of livestock research, extension, and training programs as part of its overall commitment to mixed farming. FAO, the Government of The Gambia (GOTG), and the African Development Bank (ADB) helped create the International Trypanotolerant Center (ITC) in 1985. Most of these projects followed the traditional assistance model of the period in that foreign technical assistants working in collaboration with national ITC or Department of Livestock staff primarily staffed them. During this period, a whole generation of senior staff, many of whom provide the "human capital base" of the DLS management structure today, received overseas training in the US, Australia, and the USSR.

In 1985, The Gambia suffered a major economic crisis that precipitated their collaboration with the International Monetary Fund (IMF) in carrying out a rigorous programme of structural adjustment, the "Economic Recovery Programme" or ERP. Key elements of the ERP involved monetary reform and the revoking of earlier systems of inefficient agricultural marketing subsidies. These reforms had a major impact on agriculture, since they removed a great deal of the comparative advantage that peanuts had enjoyed (due to fertilizer subsidies and high market prices). The same fiscal reforms created a "crisis" in the organization of government livestock production and health services since the ERP no longer allowed the Department of Livestock Services to supply subsidized inputs (vaccines, mineral supplements), nor to manage production units (hatchery, poultry, swine, sheep and goats, etc.).

It was within this context of ERP reforms and the gradual withdrawal of USAID from its earlier commitment to livestock that UNDP became a lead donor in the livestock sector. The first in this series of livestock projects, GAM/86/006, was designed to promote new models of intensive rangeland management in two districts of the historic center of livestock production in Gambia--the Central River Division (CRD). This project was reinforced the following year by a second project, GAM/87/004, which was designed to develop and test technical packages in small ruminant production. This formerly had not been a focus of the Livestock Department efforts. A third livestock project (GAM/91/001) ("Improving Extension Services for Women's Livestock"), which was a sub-component of the National Women in Development Project (hereafter referred to as the WID project), was designed to promote on a national scale some of the new extension methodologies and technologies designed under GAM/87/004 for women farmers. A key element in promoting the success of these three UNDP-funded projects was the presence of a strong cadre of national livestock experts who had trained abroad as part of the initial increase in foreign assistance that followed the 1968-1974 drought.

Buoyed up by the success of the ERP structural adjustment reforms in turning around the economy, the country embarked on a second five year austerity programme referred to as

the "Programme for Sustained Development" or PSD in 1990. The goal of the PSD was to consolidate the gains of the ERP, further emphasizing the need for government to minimize its direct intervention in the productive sectors. The plan identified Livestock as one area where Gambia appeared to have a certain amount of comparative advantage due to the exploding demand for livestock products from the tourist sector, the production potential of the national herd, and the strong base of indigenous knowledge in livestock production.

Despite the evidence for strong market demand within the country and the region, the nation's production systems remained based on traditional systems with poor farm management techniques and low productivity. In 1991, the average mortality rate was 16% for cattle, 30% for sheep, 33% for goats, and 39% for poultry. The problem was especially serious for poultry due to inadequate housing and non- existent feed supplementation and disease control. As a result, The Gambia imported US$ 1,604 million for meat and meat products and 2.01 thousand metric tons of milk and milk products in 1989/90.

Since 1986, the DLS has attempted to adapt its national programme to meet these challenges within the framework set by the ERP and PDP structural adjustment reforms. This adaptation process included the development of a more decentralized system of livestock extension and services through the DLS field staff of Livestock Assistants. This initiative was to be dovetailed with parallel developments for crop production extension under the T&V (Training and Visit) system initiated under the World Bank funded "Agricultural Services Project." The co-ordination of this polyvalent extension service is, at the divisional level, the primary responsibility of the Divisional Veterinary Officer (DVO) and Divisional Agricultural Coordinator (DAC).

A significant step toward formulating the revised role of the Department of Livestock Services was the organization of a comprehensive livestock sector review with UNDP assistance (DLS 1991). In conjunction with the review, a National Conference on Livestock Sector Development was convened. It was anticipated that this 1991 review and conference would provide the basis for a national strategy and action plan with short, medium, and long-term objectives and the associated interventions needed to attain them (GAM/92/CO4; see UNCDF 1991, Annex 6).

B. Project Document

1. The Problem and the Technical Approach

The technical approach of the current project was designed to address two of the most immediate problems identified in the 1991 Livestock Sector Review. The problems were:

- an insecure supply of preventive drugs which made it difficult to control the epidemic disease which reduced the impact of any other positive achievements in nutrition and breeding;
- the weak capacity of the Department of Livestock Services to collaborate with the complex array of partners with which it was now expected to interact (e.g. community

based organizations, the private sector, NGOs, other governmental and UN agencies) toward achieving its goals for improving animal health and productivity.

Although the focus of the project collaboration with GAMVET (Output 1.1 and 1.2.) and the Mini-libraries (Activity 1.3.3, Table 2.1, Annex 2) was national in scope, the other activities concentrated on the Central River Division. This decision was based on the idea that many of the proposed technologies and extension methodologies would need to be developed, tested, and modified before being extended to other areas.

2. Objectives, Indicators, and Major Assumptions

Objectives and Indicators of having Achieved	Outputs needed to achieve objectives
Immediate objective 1: *To improve the health and nutritional status of cattle, small ruminants, poultry, equines and donkeys*	Output 1.1. Enhanced Capacity of Gamvet to ensure nationwide supply of drugs and vaccines on a sustainable basis
Success criteria: a) Elimination of net purchase of equines and donkeys from Senegal, through a 15 percent decrease in the mortality rate, and a 50 percent increase in foaling rate in CRD	Output 1.2. Fully operational network of seven divisional veterinary pharmacies
b) Significant increase in poultry productivity (+20 percent) and locally produced poultry meat and eggs readily available in CRD markets	Output 1.3. A well trained cadre of 20 veterinary assistants in the CRD division
c) Significant increase (+20 per cent) in cow milk production	Output 1.4. Livestock owners and producers in CRD Division well trained and supported in improved animal breeding and nutrition techniques
	Output 1.5. Yoro Beri Kunda demonstration and training site fully operational
Immediate Objective 2: *To improve the processing and marketing of livestock products*	Output 2.1. 20 community-owned village slaughter slabs fully operational in CRD
Success criteria: Slaughtering at village level will meet standard hygiene requirements; locally Processed meat and milk products of standard quality will be readily available in CRD Division markets and will meet local demand	Output 2.2. Improved availability and marketing of standard quality lives animals and livestock products meeting local needs at the divisional level
Immediate Objective 3: *To determine the appropriate mechanism for savings mobilization and credit formation among livestock owners and producers to enhance commercialization of the livestock sub-sector*	Output 3.1. Consultancy reports (on credit) produced

3. Beneficiaries

The primary beneficiaries of the projects as stated in the project document were: (PD:6-7) "first and foremost directed to the rural communities;" followed by the cadre of Livestock Assistants; GAMVET, and the management and technical staff of DLS.

Other inputs from the government included full responsibility for the salaries and benefits of the Livestock Assistants who would be expected to allocate a portion of their time over the three year life cycle of the project to: (i) on-site training at the YBK station; (ii) project-sponsored study tours; (iii) operating the Village Health Care Center (VHCC) to be built for each LA duty station; and (iv) assisting the DDS, VSF/Swiss, and DLS training staff with the design of farmer training programs in the two to four project villages within his/her area of operation.

Although not explicitly spelled out in the document, it was anticipated that the LA would perform these duties in addition to his/her normal DLS activities (animal health and production) in the 30-36 villages where he/she served as the major representative of the DLS and/or the State Department of Agriculture under the new T&V system.

4. Modalities of Execution

a. Partnership Arrangements: The Ministry of Agriculture (now State Department of Agriculture) was the official executing agency and the Department of Livestock Services (under the Ministry) served as the official implementing agency of the project. One of the unique aspects of this project, distinguishing it from the three previous UNDP/GOTG efforts executed by the Government with implementation assistance from one or more specialized UN agencies (notably FAO), was that the government would not only execute, but also implement. The government was to be assisted by an international NGO (VSF/Swiss)[1] under the modalities of a subcontract for the implementation of specific project activities. Other activities were to be implemented in collaboration with the private drug company GAMVET.[2]

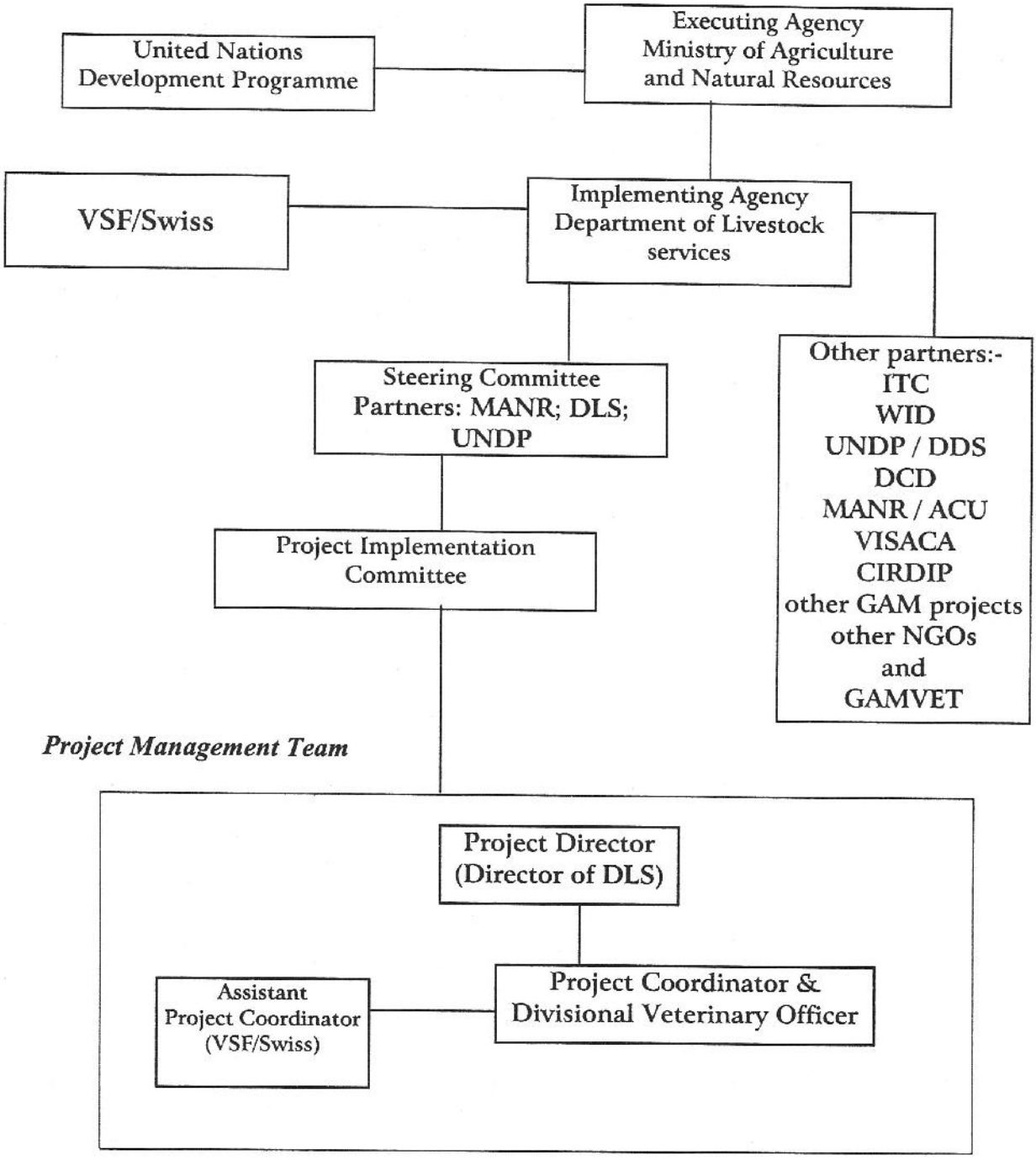
The same project document outlined a series of innovative partnership arrangements that linked these three partners (DLS, GAMVET, and VSF/Swiss) with other actors for the execution of specific activities. These included (Figure II.1): (i) private sector butchers and livestock middlemen; (ii) the Department of Community Development under the Ministry of Local Government; (iii) the United Nations Volunteers DDS Field Workers; (iv) other UNDP and non-UNDP projects including the GAM/91/002 WID project, "Improving Extension Services for Women's Livestock Production;" and (v) one or more private sector

---

[1] The Swiss branch of Vétérinaires Sans Frontières, which is a major international NGO with extensive experience in the design of participatory community based livestock projects in Senegal and other areas of West Africa but no previous history of working in the Gambia.

[2] GAMVET was the private drug company incorporated in 1991 to take over the task of supplying farmers and the DLS Veterinarians, Livestock Assistants and clinics with a reliable supply of veterinary drugs;

Figure II.1: GAM/93/004 Planned Partnership / Implementation Structures



consulting firms that would be contracted to carry out specific livestock marketing and credit studies as well as management support to GAMVET.

b. Project Inputs: The project inputs from the Government of The Gambia included the following personnel (PD: 14): (i) a part-time Project Director (The Director of the Department of Livestock Services); (ii) a part-time Project Coordinator (the Director of the Veterinary Office [DVO] of the Central River Division) (no specific disciplinary qualifications specified); and (iii) a national veterinary doctor.

The government was also expected to provide basic office space and equipment, furnished housing for the VSF/Swiss Volunteers and United Nations Volunteers Domestic Development Service (UNV/DDS) Field Workers, and administrative costs (PD: 14).

The project was cost-shared between the Swiss government and UNDP with these two partners contributing the costs of the consultants to GAMVET, three VSF volunteers and seven United Nations Volunteers, DDS field workers, the training programs, livestock fairs, and basic equipment as well as specific administrative, operational, and maintenance costs (PD: 15). The funds for the Swiss portion of the project derive from a special compensatory financing programme that was created to assist developing countries whose export of major cash crops suffered from international market shifts that decreased the profitability of such crops.

c. Project Budget and Budgetary Procedures: The project document foresaw the subdivision of the project budget with one budget administered by VSF/Swiss through a national bank near its base at YBK and a second budget administered by the DLS office in Abuko, more than 300 kilometers away from the YBK Center. The flow of funds for all expenses in The Gambia was from UNDP to the DLS who then transferred funds to the VSF/Swiss at YBK. International payments were effected by UNDP directly.

d. Project Management Structure: The project document foresaw that leadership for the main partnership (DLS/VSF/GOTG) would emanate from the DLS. Although the project document does not include a specific TOR for the function of the Project Director, the Project Coordinator or the national veterinarian, the implicit assumption appears to be that these roles would be the following:

(i) The National Project Director would be based in the capital Banjul (at Abuko) and oversee the overall coordination of the project with the other DLS funded projects and with donors;

(ii) The part-time Project Coordinator (the Divisional Veterinary Officer of the Central River Division; no specific disciplinary qualifications specified) would be based at YBK to oversee coordination of the project in relation to the main DLS activities in Central River Division; and

(iii) The national veterinarian would be based at YBK and share responsibility with VSF/Swiss for the design, implementation, and evaluation of the Livestock Assistants, butchers, pharmacists and Farmer Training Programs.

III. IMPLEMENTATION

GAM/93/004 was one of the early UNDP-funded projects elected for National Execution. This means for all practical purposes that execution as well as implementation was the responsibility of the national partners. Since no third party UN agency (e.g. FAO or UNV) is involved as a project partner, the UNDP Resident Representative and Mission are directly exposed to execution and implementation issues in a way that they were not before. This new role for the State Department of Agriculture (as Executing Agency) and UNDP (as donor) is a learning process that was just underway when GAM/93/004 was designed. The novelty of the concept appears to account for the lack of any clear description of these respective roles in the project document.

A. Quality of Monitoring and Backstopping

The innovative role of this project in testing new types of participatory methods of livestock farmer training, complex funding mechanisms and partnerships (with government, NGO and the private sector) was seen as a major asset of this project. It does not, however, appear that any of the major actors (DLS, VSF/Swiss, or UNDP) had adequately foreseen the intricate types of financial and management relationships that this type of innovative partnership would involve.

1. Lack of a Clear Institutional Structure for Proposed Partnerships

Although the original project document outlined a series of activities and indicated the partners who would collaborate in implementing these activities, there was no clear indication of who would provide the lead role for specific activities; nor was there a clear management structure for implementation (see Annex 2, Table 2.1 which lists the partners that were supposed to carry out specific activities in brackets). This lack of clarity created major problems for sorting out responsibility for specific activities. The same lack of clarity complicated project management, planning, and reporting.

Working out the innovative processes required to coordinate these partnerships was complicated by: (a) a one-year delay in the start-up of most activities due to the 1994 change in government; (b) rapid turnover and absences in the part-time Project Coordinator; (c) the absence of a national veterinarian attached to the project for the majority of the project period; and (d) a lack of guidance from the Project Director.

The innovative character of this project necessitated creative input from the funding donor to give guidance to the development of the new partnership relationships and management tools. UNDP, as the coordinating donor, was probably the most appropriate agency to provide this guidance. This need was insufficiently realized in the project document which was may be the reason that the portfolio was ascribed to a junior professional officer who understandably did not have the necessary experience in process and conflict management. As a result, UNDP's role in coordinating the partners under the signature of the agreement was not sufficiently proactive but became rather a very time consuming mediating role.

2. **Insufficient Collaboration with Third Partners: Department of Community Development and the WID Project**

The partnerships envisaged with Department of Community Development and the WID Project were not sufficiently pre-negotiated with these institutions at the conceptual stage of the project. This may have been one of the reasons that fruitful collaborations with these organizations in the project area did not materialize. Another reason may have been the fact that project personnel were too absorbed in resolving day-to- day issues, preventing them from adopting a more outward looking attitude.

3. **Limited Joint Planning, Reporting and Monitoring**

Although most of the LA, DDS, and Animator records on vaccinations, treatments and attendance at farmer training and demonstrations were recorded in a form that would allow analysis for gender, this information was not analyzed on a regular basis as foreseen in the project document. While there was extensive reporting from the subcontractor there was almost no reporting from the DLS project management beyond the routine financial planning which was required in order to access project funds from UNDP in the context of the United Nation's NEX (National Execution) procedures. This unbalanced reporting contributed to the difficulty of orchestrating such a complicated partnership.

The aforementioned lack of clarity in partners' roles and relations (VSF/Swiss and DLS) seems to have contributed to the rupture of regular joint planning meetings. Four quarterly tripartite (DLS/UNDP/VSF) meetings were held in 1995. From January 1996 to April 1997 there were no tripartite meetings. To date there has been only one PPER (Project Performance Evaluation Report) meeting (July 1996) at the State House in Banjul. Although no tripartite meetings took place between January 1996 and April 1994, the UNDP staff did carry out regular field visits. The partners' initiative in organizing more regular monthly tripartite meetings since April 1997 appears to have contributed to a substantial improvement in the quality of the partnership.

The same unclear partnership arrangements which hindered joint project planning and reporting, made it necessary for UNDP project administrators, the Deputy Resident Representative, and the Executing Agency (the State Department for Agriculture) to mediate partnership conflicts. This intervention contributed to a substantial improvement of the partnership which enabled GAM/93/004 to achieve an important part of its stated outputs. The resolution of these unclear partnership issues, however, consumed staff time well beyond the amount of time that UNDP managers normally assigned to these duties.

B. Activities

In spite of these implementation problems, GAM/93/004 has made major progress on all but two of the activities outlined in the original project document. These two activities--a milk store in Bansang and a plan to promote poultry and milk consumption--were deemed insufficiently profitable to continue. The project also has been sufficiently flexible to introduce over 20 new activities that represent a 50% increase in the total number of

activities outlined in the project plan (Annex 2, Table 2.1). Many of these new activities were designed to address issues that became clear though the continuing process of needs assessment.

C. Budget

There was enough flexibility from the donor side for reallocation of funds for new activities which increased the overall relevance of the project and thereby greatly contributed to cost effectiveness. In total, there have been eight revisions to date (Annex III, Table 3.1). The budget control was efficient (Annex III, Tables 3.2., 3.3., 3.4), and through coordination with other projects in the sector, the implementing agency could effect some savings on the budget.

The evaluation team finds that the flow of funds did not constitute a constraint on implementation. Government financial rules and regulations in some instances, however, prevented the DLS from being sufficiently efficient in implementation (especially in the field of rehabilitation of YBK, divisional pharmacies, operation and maintenance of vehicles and engagement of consultants).

IV. RESULTS: PRODUCT-PROCESS

A. Outputs: Observations and Need for Follow-up.

1. **OUTPUTS 1.1**: *Enhanced capacity of GAMVET to ensure nation-wide supply of drugs and vaccines including a network of divisional veterinary pharmacies.*

2. **OUTPUT 1.2**: *Fully operational network of seven divisional veterinary pharmacies.*

a. Observations: There has been tremendous progress on the achievement of these two outputs; GAMVET is definitely on the right track. The company is still, however, a long way from achieving its ultimate goal of achieving full financial independence from the Department of Livestock Services.[1] Progress has been slower than anticipated in the project document which anticipated that the consultant's assignment, pharmacist training, and construction would begin in the first year. This time line was unrealistic given the fact that the company is still establishing its management, basic accounting routines, and procedures which would have been overtaxed by too rapid expansion. The process of strengthening company management, accounting routines and procedures was slowed down due to a 2.5 year delay in hiring the GAMVET management consultant. This delay was caused by cumbersome government procedures in appointing consultants.

At present, GAMVET's working capital is Dalasi 270,000 ($US 27,000) constituted by Dalasi 20,000 ($US 2,000) of share capital and a Dalasi 250,000 ($US 25,000) grant that the company received from EDF (the European Development Fund) as part of the Pan-African Rinderpest Campaign Project (PARC).

Since 1993 the Department of Livestock Services has rehabilitated and put at the disposal of the company six buildings in six of the seven DLS divisional offices to use as pharmacies. Four of the six have cold storage facilities; the other two are due to receive cold storage before the end of this year. All six pharmacies are operational although there are reports that the smaller three facilities still need improvement. All six pharmacy assistants participated in a two-month training program (two training days per week) on pharmaceuticals, stock management, and accounting at YBK. We assessed the initial reaction to the increased ease and quality of animal vaccines to be quite positive.[2]

The GAMVET management consultant is currently working with the company's business manager to develop the financial information systems that the company needs in order to take the necessary decisions recommended by the consultant. The evaluation team finds these recommendations to be imminently appropriate and is confident that if the Board of Directors acts accordingly, GAMVET will indeed become a sound business enterprise.

---

[1] Under the terms of the 1985 structural adjustment ERP, the DLS was no longer able to sell drugs.

[2] One Action Aid official reported that once the YBK GAMVET pharmacy and YBK training and demonstration became operational, it was no longer necessary for the NGO to maintain its own livestock pharmacy and assistant in the CRD region.

b. Follow-up Needed:

1. The Board of Directors of GAMVET needs to act on the management consultant's recommendations. The context of these actions should be formed by a medium-term strategy on marketing and company development. This strategy should evolve from close interaction with all stakeholders and actors in the sector.

2. The Board of Directors of GAMVET needs to take immediate action to guide the company for urgent finalization of the auditor's report. Such a report is required for the company to be registered as a government vendor that in turn is a necessary precondition to their being able to supply drugs to government agencies.

3. As a small company, GAMVET might not be able to engage, on a full time basis, the expertise they require for management and accounting. It is our impression, however, that such expertise could be acquired on a part-time basis.

4. To increase the efficiency of the drug distribution system (i.e.: bring the drugs closer to the farmers), GAMVET should establish closer linkages with village associations, producer associations and NGOs working in the livestock sector.

3. **Output 1.3:** *A well trained cadre of 20 veterinary assistants.*

a. Observations: A second highly significant product of the GAM/93/004 project was the creation of the first model for in-service training of Livestock Assistants. Since these Livestock Assistants provide the core veterinary services at farmers' level, their continuous training is essential.

The LA training program was especially strong in technical areas such as pharmacology, anatomy, surgery, and the treatment of infectious diseases. The evaluation team's interviews confirm the training evaluation forms that showed that the LA's welcomed this opportunity to hone their technical skills. They reported that the training they received was categorically superior to the conventional Training and Visit (T&V) livestock training modules. The same training offered "hands on" experience that they did not receive at Gambia College. The LA training programs were less strong on non-technical extension themes like gender issues and participatory extension models. The program's strong emphasis on technical training can be attributed to the disciplinary background of the principal training staff (both veterinarians) and the weak collaboration with the WID Project and the Department of Community Development who were supposed to supply resources for the non-technical part of the training program.

b. Follow-up Needed:

1. Any long-term attempt to sustain the significant gains that GAM/93/004 made toward developing a model for in-service training of LA's must be linked to the evaluation team's global recommendation regarding the principle of YBK becoming an auto-financed regional resource base for the livestock sector.

2. Future programs need to consider the addition of high quality training programs on Gender Issues and Participatory Extension (greater emphasis was given to these matters within the farmer training component; see Output 1.4 below). Guest lecturers from The Gambia College, ITC, and the local or regional NGOs should be used to strengthen these programs.

3. The YBK teaching staff need to further develop and use new methodologies for needs assessment techniques with the goal of soliciting greater LA inputs into curriculum design and training.

4. Transfers of LA's are an administrative necessity. Nevertheless, the DLS can increase the effectiveness of future training by planning staff transfers well in advance in divisions where LA's are involved in special training.

5. Care needs to be taken to organize and preserve the teaching materials that the VSF-Swiss developed. Many of these programs should be maintained as reference materials in the mini-libraries (Activity 1.3.3.) that were foreseen for the YBK camp and divisional offices.

4. **Output 1.4:** *Livestock owners and producers in CRD Division well trained and supported in improved animal breeding and nutrition techniques.*

a. Observations: GAM/93/OO4 has continued the pioneering work of the GAM/91/002 "Improving Extension Services for Women's Livestock Production" Project in developing a farmer training methodology and participatory extension approach for livestock producers. These methodologies and approaches are further strengthened by: (i) a sound assessment of farmers' needs; (ii) formulating curricula, training programmes, and demonstration sites for village and YBK based training; and (iii) the design of special YBK-based and village-based training programmes and study tours for the four village animators (staff paid by the project) and unpaid village-based auxiliaries (approximately three per village for a total of 64).

These products are commendable and strengthen many of the models that were first developed on GAM/91/002 by "mainstreaming" their use within the ongoing activities of the Department of Livestock Services for one division (Central River Division).

There are, however, real questions about the process through which some of these results were implemented. The original project plan anticipated that the Livestock Assistants would be the major points of contact between the project and the village associations and authorities in the 20 villages that they were expected to strengthen. There was an implicit assumption that besides his already full workload, the LA would be the main actor in this "participatory process." It was further assumed these activities would be facilitated by the Department of Community Development under the Ministry of Local Government even though no representative of their divisional or national office appears to have been formally involved in the project design.

The difficulty of forging this *ex-post facto* relationship with the Department of Community Development (DCD) combined with the time demands placed on the Livestock Assistants by their main department activities and administrative duties (including attendance at routine Agricultural Services Project T&V training sessions) made it difficult for the project to really orient and involve the LA's in community development activities. This was further complicated by large-scale transfers of LA's during the second year.

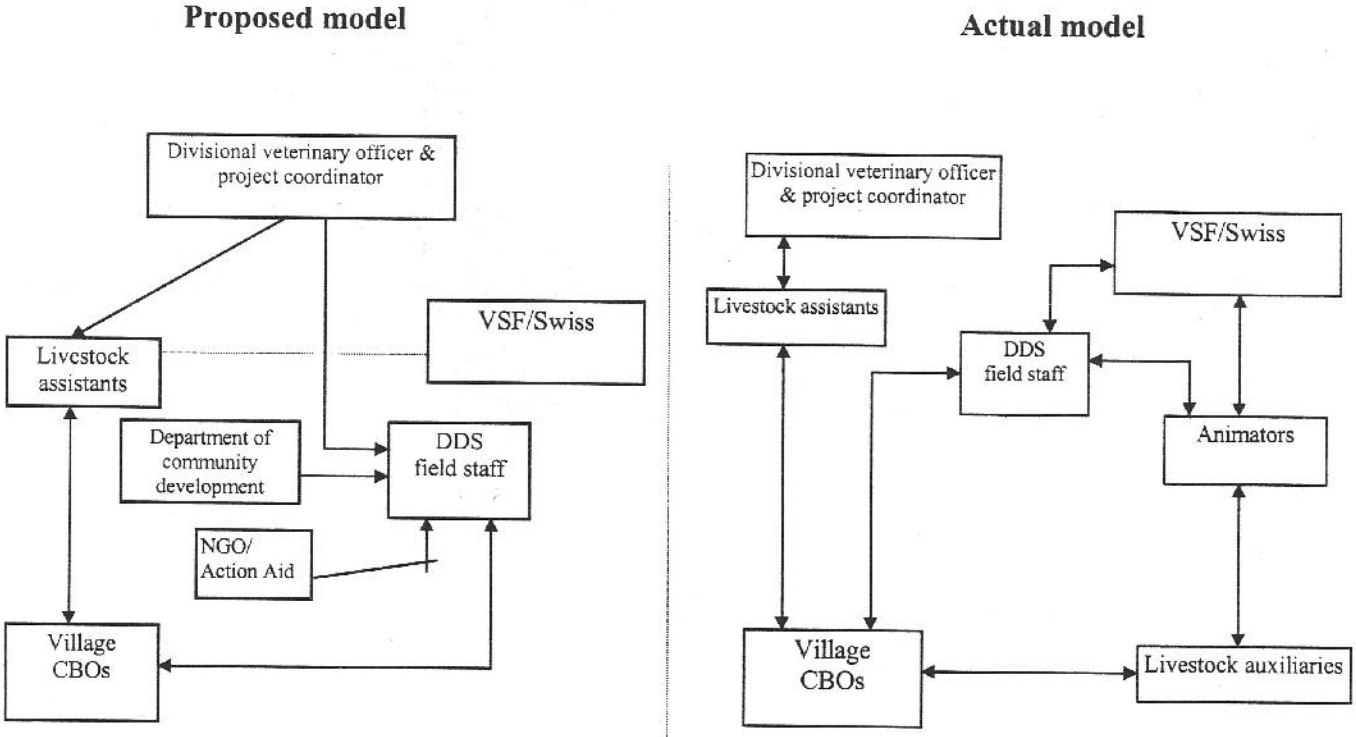
(i) *Creation of a New Farmer Training Model including four paid Animator Positions and unpaid posts of Village Auxiliaries.* The subcontractor's difficulties in scheduling sufficient time with the LA's for carrying out the activities it was supposed to conduct under Output 1.4. (strengthening farmers associations, assessing training needs, formulating and implementing training programs, organizing farmers visits, setting up demonstration sites) in collaboration with the UN/DDS volunteers led them to create four new staff positions of animators. In contrast to the LA's which have a two to three year diploma in animal health and production from Gambia College and are expected to serve all over The Gambia, the animators are village-based school leavers who speak the local languages.

The same revised intervention model called for creating at least three village auxiliaries (one in poultry, one for small ruminant production, and one for large livestock production) in each of the 20 target villages. The process by which the auxiliaries were chosen appears to have varied in the different villages. The auxiliaries received special training at the YBK station and through study tours; they were also the main contact persons for the village based training programs.

The role of the animator was to connect the villages (through the auxiliaries) to the wider project structure of YBK station, study tour, LA, and subcontractor organized training (see Figure IV.1.). The same system of working through animators provided the mechanism for the DDS work in strengthening farmers associations. This intervention model borrowed heavily from training programs organized by VSF/France in Senegal.

(ii) *Short-term Product vs. Long-term Sustainability of the Revised Farmer Training Process.* This "process" of participatory extension and working through the animators and auxiliaries to train and strengthen village groups enabled the project to carry out the planned activities. The "process," however, is not sustainable without project funds. First, the Department of Livestock Services cannot support the salaries of the animators who do not have the educational background of LA's. Second, the professional profile of the Livestock Assistant is not that of a community worker. Third, the project was unable to forge the appropriate linkages with the Department of Community Development (DCD) or the local NGO Action Aid that intervenes in the livestock sector, both of which have community-based staff that specialize in community development.

Figure IV.1: GAM/93/004 Project Model of Institutional Arrangements for Field Interventions



b. Follow-Up Needed:

1. The acting DVO/Project coordinator in concert with the Team Leader of the subcontractor needs to organize a series of separate meetings with the Department of Community Development and Action Aid to develop a preliminary plan for collaboration with the villages where they jointly intervene. Our preliminary discussions with Action Aid reveal that they already intervene in 16 of the 20 project villages and about 200 villages in the region.

2. Recommendation 1 should be strengthened by an institutional analysis of the current system of GAM/93/004 intervention in the villages in relation to other types of village community development activities by the Department of Community Development (DCD), Action Aid, CARITAS and other actors.

3. Based on recommendations 1 and 2, the DVO/Project Coordinator, working in concert with the subcontractor, the DCD, and Action Aid should develop a pilot plan for collaboration in the coming year. The anticipated output of this collaboration would be:

(i) to increase the sustainability of the "training of trainer" farmer training programs already launched in the 20 target villages by the project; and

(ii) to widen the impact and spread effects of the GAM/93/004-supported village-level farmer training tenfold by linking the training models developed for the 20 target villages to the appropriate institutions for community development for the CRD as a whole (CDC, Action Aid, and other NGOs).

4. The project should consider revising some of the extension program's technical recommendations. Although the time spent in the field was insufficient to allow for an in-depth economic analysis of the proposed technologies, the evaluation team will nevertheless share some of its initial impressions.

(i) *Poultry*. The management practices for poultry production are valuable but should be complimented with the choice of a proper breed to insure economic viability. This would also imply that market linkages should be part of the program.

(ii) *Milk processing*. The approach to milk processing is wrongly conceived since in the absence of a major change in breeding programs, there is absolutely no surplus of milk in the region. This absence of surplus is explained by the seasonal migration of the cattle out of the area at the period of peak production as well as the limited milk potential of the N'dama cattle. While the current program is appreciated for its impact on household hygiene, it does not appear to address a major identified need. Our initial recommendation would be, therefore, that the project should limit future investment in this area.

(iii) *Meat Processing*. The current approach to meat processing which focuses on male butchers and reducing the spoilage of leftover meat is wrongly placed. This approach should be redirected toward development of products with added value for potential niche markets in the regions. Two potential niche markets that could be explored include: the need for a hygienic mid-day meal for urban workers and the strong demand for roadside snack foods along the major highway that connects Banjul with the east. The same approach should target women who have traditionally played the major role in food processing at the household level and in small-scale trade. Our conversations with the DDS in charge of these activities suggest that the same technology could be used to process other perishable produce such as tomatoes that women identified as key priorities for market and home consumption. To enhance the economic viability of meat processing, the project should include provision of technical support for the treatment, manufacturing, and processing hides and skins for the tourist trade and export.

iv) *Compost Pens*. The current technical approach to developing compost pens is promising as demonstrated by the interest manifested by farmers during our visit. The evaluation team recognizes the validity of this approach combining the production of milk and meat as the basis for cash income for rural households in times of need with improved land use through the production of manure.

(v) *Ram Fattening*. The YBK Teaching and Demonstration Center should continue to support the DLS-supported ram fattening program which appears to be technically sound and profitable. The credit consultation currently under way appears to be concerned with addressing the impact of short-term credit on the participation of poorer farmers (male and

female) in this program. More attention needs to be given to analyzing the gender patterns of participation and benefits from the program as part of the routine data gathering process.

5. **OUTPUT 1.5:** *Yoro Beri Kunda demonstration and training site fully operational.*

a. Observation: The DLS has successfully rehabilitated the major buildings of the YBK Training and Demonstration Center. The Center has also become a major center for Livestock Assistant and farmer training for the division and the region (CRD, URD). Unfortunately the post for a national veterinarian at YBK as counterpart to the VSF/Swiss veterinarians was never filled made it impossible to transfer the necessary skills and know-how to the DLS staff. For the long-term impacts of this high quality PRODUCT to be sustained and expanded, the DLS needs urgently to set in motion the PROCESS that is necessary to maintain the Center's rehabilitated "hardware" (buildings, training materials) and to sustain the "software" (veterinarian trainers, training curricula, field workers) now available at the Center.

b. Follow-up Needed: The DLS needs to clarify the management and financial structure of the YBK Training and Demonstration Center by: (i). developing a YBK camp management plan for maintenance of the core teaching staff and the basic training infrastructure(ii). establishing a senior place a senior management structure for the Center including a camp manager and senior training officer that will work in collaboration with the division-level DVO: (iii) according a semi-autonomous status to the YBK Center allowing it to retain 100% of its generated income.

6. **OUTPUT 2.1:** *To improve the processing and marketing of livestock products.*

a. Observations: GAM/93/004 has successfully established facilities and pioneered a series of new technologies to improve the hygienic processing of meat. The project has also set in motion a PROCESS for the sustainable management of these facilities through strong, self-governed, financially independent butcher associations.

Although the results of these activities (creation of the slabs and butcher associations) are promising and have good prospects for being sustained, they still need to be monitored and encouraged. The formation of butcher associations only began in 1997 and, to date, only one butcher association (Bansang) is fully operational with a revolving fund and a management system; it is only five months old. Two other associations have been formally constituted, but they are not yet fully operational.

b. Follow-up Needed:

1. The UNV/DDS meat specialist needs to continue with his plans to collaborate with the local Livestock Assistants to facilitate the development of butcher associations in connection with the six slaughterhouses that serve larger settlements.

2. He should also continue his collaboration with the relevant Livestock Assistants and village leaders in the formulation of a village management plan for each of the seven smaller settlements that have received slaughtering platforms.

3. The Department of Livestock Services needs to continue to monitor the monthly reports that Livestock Assistants complete as part of their meat inspection duties. This activity was performed by the DDS and subcontractor team leader but has now been incorporated into the LA monthly reporting system to the DVO.

7. **OUTPUT 2.2:** *Improved availability and marketing of standard quality live animals and livestock products meeting local needs at the divisional level.*

a. Observations: Activities under this output were designed to facilitate the availability and marketing of standard quality livestock products and animals. Some of the activities that were originally planned for this area were deemed unfeasible (e.g., the regional milk store and a campaign to promote consumption of poultry products and milk). One project PRODUCT that appears to have strong prospects of sustainability is the upgrading of meat stalls at five market sites. The long-term sustainability of this activity is linked to the same PROCESS of creating butcher associations outlined in the preceding section.

The project has also created four processing and demonstration units for the following activities: milk processing, meat drying, processing hides and skins, and slaughtering. Field workers have been trained to operate the units and to assist in the practical training sessions at these units.

The CRD divisional and national livestock shows that received supplementary funding under this project provide an opportunity for farmers to learn new techniques and to sell their animals. The same shows are an important source of publicity for the sector.

b. Follow-up Needed:

1. The DDS dealing with meat processing should proceed with plans to link the long-term maintenance of the meat stalls to the activities of the butcher associations.

2. The DLS needs to consider ways that the current line positions for "YBK stock men" could be used to support the salary costs of the four field workers that the subcontractor, UNV/DDS's and Livestock Assistants have trained to run the YBK demonstration units.

3. The DLS should continue to encourage the participation of producer associations, private sector and NGO actors in organizing, financing, and publicizing the divisional and national-level livestock shows.

8. **OUTPUT 3.1**: *Consultancy to determine the appropriate mechanism for savings mobilization and credit formation among livestock owners and producers to enhance commercialization of the livestock sector.*

a. Observations: An international consultant is in the midst of completing an assignment designed to study ways and means to facilitate farmers' access to credit for promoting livestock production and marketing. This assignment was expanded from the original six weeks to three months in order to include an analysis of market constraints and mechanisms. The late timing of this report raises serious questions about the ability of the different project actors to incorporate the resulting conclusions into their work.

b. Follow-up Needed:

1. Given the short time left for the study under the current project, the Acting DVO and subcontractor Team Leader should consider linking the discussion of this report to the project's broader goal of "Strengthening farmers associations" (see preceding discussion of Output 1.4) through new horizontal linkages to the Department of Community Development [DCD] and Action Aid.

2. The DLS needs to clarify the current discrepancy between the project document text (page 12) which emphasizes the identification of appropriate credit links and the project document work plan (Annex I, page 4) which emphasizes the mobilization of credit through the VISACA (Village Savings and Credit Associations). This discrepancy may simply be an editorial error that dates from an earlier draft of the project document. Unless this discrepancy is clarified, it risks shifting the emphasis of the report away from "assessment" to "mobilization." This shift in emphasis might inadvertently encourage the consultant to under emphasize the non-VISACA credit programs such as those that are currently being used in the 200 villages covered by Action Aid.

9. **Non-stated Output 4.1:** *To promote a grassroots, participatory approach to development in which local communities, farmers associations, and NGOs will be closely involved in the selection, planning, and implementation of project activities (PD: 7); To ensure that women farmers are fully integrated into project activities (PD: 7).*

a. Observations: In addition to the eight formally stated outputs of GAM/93/004, the project document included a series of activities whose goal was to promote greater local participation in the design, implementation, and assessment of livestock extension programs. The same document stated that GAM/93/004 would emphasize gender issues.

Although participatory methodologies were a major goal of GAM/93/004, the project administrators did not foresee monitoring and assessment of the methodologies and activities related to the process of partnership building or gender sensitization as a line item

in their monitoring system. Two consequences of this omission have been: (i) to underplay the project's significant achievements in developing new participatory extension methodologies for livestock production and marketing (butchering); and (ii) a strong gender bias in the teaching staff, LA, and farmer training curricula. Routine monitoring of these issues by the tripartite PPER (Project Performance Evaluation Report) did not occur.

b. Follow-up Needed:

1. The project must develop better methodologies for monitoring gender impacts and the project's progress (or lack of progress) in developing new participatory methodologies and the establishment of fruitful horizontal linkages with other actors in the sector.

2. More careful monitoring of gender is necessary to avoid setting in motion gender stereotypes regarding hiring and programs that may become progressively more difficult to reverse. Since the YBK Center is a training and demonstration center for the region, the station should aspire to have a fair balance (50-50) of both men and women serving as livestock assistants, animators, training vets, administrators, or field workers. Whenever possible, this type of positive employment should be combined with one to two day "study tours" for young women enrolled in the agricultural science courses of the nearby Brikamaba middle and high schools. Traditionally, the low number of women attending high school and middle school in the YBK region has meant that few women had the basic academic credentials needed to become LA's or community development workers. The recent creation of a new high school and middle school in Brikamaba has resulted in a quantum leap in the number of girls enrolled in these schools. This impending wave of female school leavers creates a new "window of opportunity" for the YBK Training and Demonstration Center. Specifically, it suggests that the Center could become a national leader in reversing the negative stereotypes that women have regarding agricultural employment in general and agricultural employment in the livestock sector in particular.

3. To profit from this window, however, the YBK Center needs to increase the number of women on its staff as permanent and temporary trainers, administrators, field workers, and Livestock Assistants. The Center also needs to work more closely with the agri-science teachers (who appear to be mostly male) at the middle and high schools.

4. The same sort of gender sensitivity is needed to encourage the Department of Agriculture to insure that women have access to the new technologies (ram fattening, compost pen management, meat drying and marketing, as well as poultry keeping). This type of monitoring can enhance project success by identifying missed opportunities to disseminate new technologies. One of the best examples of this is the dried meat technology that enjoyed only low levels of interest among the male butchers to whom it was introduced. The evaluation team feels strongly that this technology should be tested among women farmers who have traditionally engaged in drying activities and small commerce.

B. Immediate Objectives

1. Objective 1: *To improve the health and nutritional status of cattle, small ruminants, poultry, equines, and donkeys.*

The evaluation team feels strongly that the success criteria[3] outlined for this objective are not realistic for either the time period or the activities outlined for the project. For this reason, we think it would be wrong to expect the project or the evaluation team to assess the project activities against these criteria.

What we can say is that this project has created or helped to create a number of technologies and extension methodology PRODUCTS[4] that we expect will improve the health and nutritional status of livestock in the CRD over the long-run.

For these results to be sustainable, they must be linked to strengthening the YBK Training and Demonstration Center's "horizontal" linkages to other institutions in the region, such as Action Aid, DCD, and ITC, as well as other national resources like the GAM/91/002 WID project and the Department of Animal Health and Production at Gambia College.

2. Objective 2: *To improve the processing and marketing of livestock products.*

The supply line that links livestock producers to consumers is extremely long and complex. Any long-term increase of supply in "locally processed meat and milk products of standard quality" (the success criteria outlined in the project document[5]) will require complementary change in both livestock production and distribution systems. It can be said that this project has very definitely contributed a number of TECHNOLOGY PRODUCTS (town and village slaughtering facilities, new technology for drying meat) and PROCESSES (organization of the first formal butcher associations and town meat stalls) that improve the hygienic processing and marketing of livestock products. It is still too early to assess the long-term impact of these activities.

3. Objective 3: *To determine the appropriate mechanisms for savings mobilization and credit formation among livestock owners and producers to enhance commercialization of the livestock sub-sector.*

---

[3] The original success criteria (PD: 10-11) were: (1) significant reduction of ruminants' mortality rate (+ 10%) and birth rate (+ 5%) in CRD; (2) elimination of net purchase of equines and donkeys from Senegal, through a 15% decrease in the mortality rate, and a 50% increase in foaling rate in CRD; (3) significant increase in poultry productivity (+20%) and locally produced poultry meat and eggs readily available in CRD markets; (4) significant increase (+ 20%) in cow milk production.

[4] GAM/93/004 products which deserve special note: (1) strengthening the capacity of GAMVET to provide a reliable supply of veterinary vaccinations and drugs; (2) developing a new curriculum for post-graduate technical and participatory extension training for the DLS's Livestock Assistance in CRD; (3) strengthening some of the new models for participatory farmer training (travel tours, farmer exchange, on farm training and the GRAAP methodology) that were first tried during the GAM/91/002 WID project and developing new mechanisms for this training (written curricula, YBK demonstration sites); (5) helping the government rehabilitate the YBK training and demonstration center as a tool to support participatory livestock extension training; and (6) providing a new model of construction and user-based sustainable management for meat processing.

[5] (1) Slaughtering at village level will meet standard hygiene requirements; and (2) locally processed meat and milk products of standard quality will be readily available in CRD Division markets and will meet local demand.

The activities outlined under this objective represented a small fraction of the total project. The principal activity--a three month consultancy--is currently under way. Our impression is that this part of the activity would have been more appropriately conceived as a cross-cutting output that would contribute to the first and second objectives.

4. **Non-stated Objective 4:** *To develop modalities for quality partnerships in projects with diversified partners from Government, NGOs, community organizations, and the private sector, and to enhance the gender sensitivity of these actors and their interventions.*

In addition to the formal Objectives 1-3, the project has made substantial progress toward achieving its "blind" fourth objective of developing new models for partnership building and participatory livestock extension. The project has been less successful in achieving its goals for identifying the key gender issues that need to be incorporated into this type of methodology. The long-term sustainability of these gains depends on the project being able to create a series of horizontal linkages to the relevant government, NGO, and private sector institutions that are needed to strengthen local producer institutions. The same gains must be consolidated by better addressing gender issues in employment at the Center and its major CRD partners like Action Aid.

C. Development Objective

Achievement of development objectives is a long-term process. In spite of the short life span of GAM/93/004, the project did progress toward its four intermediate objectives (three stated and one unstated) and has contributed to its stated development objective to "*enhance the living standard of the rural communities through the development of livestock production and marketing on a sustainable basis*." The team also considers that the project's activities and "grassroots" participatory methodology has contributed to some of the goals outlined for the National Strategy for Poverty Alleviation.

V. CONCLUSIONS

A. Findings

To conclude, the evaluation team, working in concert with the three leading partners (DLS, VSF/Swiss, and UNDP), agreed on ten significant strengths of the project that all parties wish to preserve. These ten strengths are listed accordingly.

1. The project's innovative partnership arrangements that include linking a strong international NGO with strong international experience in the livestock sector with a technical line department.

2. The project's advocacy and training to promote new types of Participatory Extension Methodologies for the livestock sector that: (a) encourage a bottom-up approach based on GRAAP methodologies; (b) minimize cash incentives for participation in training; and (c) emphasize extension themes that are "demand driven."

3. The project's early efforts to promote the new to the region technologies of compost pen feeding, meat processing and small ruminant production.

4. The project's willingness to adopt new activities in response to new opportunities and constraints.

5. The high quality and methodology of the project-created training programs for LA's, pharmacists, farmers, and butchers.

6. The utility of the project rehabilitated YBK Center as a regional training and demonstration site and technical resource base for the livestock sector.

7. A project philosophy which linked Center-based training of farmers and Livestock Assistants with follow-up visits and on-site training in the field.

8. The subcontractor's development of a comprehensive programme for computer-based planning, monitoring, and reporting that could be easily adapted to other types of DLS projects and programs.

9. The project's extensive processing and compiling of: (a) livestock related information including technical reports from DLS and ITC, UNDP, as well as international NGO and research institutions; (b) training curricula and materials (videos, over-head transparencies, training posters); and (c) reports that monitor some of the project's experimental technical initiatives.

10. The establishment of a private sector distribution system of retailing drugs on a commercial basis through the GAMVET divisional pharmacies.

Although the major partners agreed on the project's strengths, they also agreed that the short-term sustainability of these results is not assured within the current structural environment of the project. The long-term sustainability of these results depends upon:

a. the ability of the DLS to guarantee a certain continuity of staff and division level leadership that is capable of negotiating with the Center in order to minimize the disruptive impact of transfers on both the Center and the training programs;

b. the DLS's willingness and ability to post qualified teachers and staff to maintain and further develop the high level of: (a) training content, (b) training methodology, and (c) planning and management skills to maintain the YBK Training and Demonstration Center's function of serving a diverse constituency of government, NGO, and private sector interests within the region and nation as a whole; and

b. the YBK management being able to maintain the basic training infrastructure (computer, photocopying machines, material, equipment and facilities as well as costs of the field workers). This latter recommendation requires that the Center become self-financed and be allowed to retain its generated income (training fees, utilization of facilities, etc.) which, in turn, requires a certain amount of decentralized control over an independent budget for facility maintenance.

B. Assessment

1. Relevance

a. Purpose: The project goal to create a regional center for participatory livestock training and extension and demonstration remains highly relevant in the current context of The Gambia where livestock continues to be the major source of "moveable wealth" for the country's rural populations. Since a high percentage of this moveable wealth can be wiped out by a single livestock epidemic, the project's decision to support the development of GAMVET is entirely justified.

b. Approach: The project adopted an integrated approach to livestock development that is well adapted to the socio-economic realities of the Gambian livestock sector. The team feels, however, that there was a basic disjuncture between this goal and the project document's presentation of a detailed list of activities and twenty project villages. Fortunately, the project staff's (administration and subcontractor) perceptive interpretation of the project document was in the right spirit and allowed them to create new activities and institutional models for carrying out these activities.

c. Modality of Execution: GAM/93/004 aspired to a highly innovative modality of National Execution (NEX), a model that linked a strong international NGO with a line Ministry Department (the Department of Livestock Services) for the implementation of specific activities. Unfortunately, neither the UN, nor the DLS, paid adequate attention to the need to clarify the roles and linkages between the different actors that this type of intricate partnership would require. The team feels that this lack of clarity in the initial institutional model combined with the 1994 change in government were the major source of implementation delays and problems. These execution problems need to be examined so that similar problems can be avoided on future programs that are based on similar concepts of innovative partnership linking NGOs and the private sector with line ministries. Many

of the same coordination problems may arise in the execution of the elaborate partnerships proposed for the forthcoming "Household Food Security Programme."

2. Performance: Efficiency and Effectiveness

a. Effectiveness: The personnel provided by the main NGO subcontractor, VSF/Swiss, arrived on time and possessed the professional expertise required to develop the YBK Center as a training and demonstration center for the livestock sector. The project record in transferring these high level "training of trainers" skills was hindered, however, by the lack of an appropriate mix of national technical experts (notably the national veterinarian proposed in the project document) with the VSF/Swiss technical experts.

The high frequency in transfer of Livestock Assistants out of the division after their participation in the training programme no doubt reduced the impact of the training programme in CRD. It did contribute, however, to the wider spread of the program's impact to other regions of the country.

The evaluation team finds that the flow of funds did not pose a constraint for implementation. There was significant flexibility from the donor's side for reallocation of funds for new activities which increased the overall relevance of the programme and thereby contributed to greater cost effectiveness.

b. Efficiency: Budget control was efficient, and through coordination with other projects in the sector, some savings were possible. The team feel that the fiscal rigor and extremely high returns (both direct and through indirect spread-effects) of this type of "training of trainers" project should be examined by UNDP and other donors as an example of "best practice." In some instances the timely delivery of equipment and budget transfers was delayed by the rather cumbersome government procedures, rules and regulations for the execution of key activities like hiring the GAMVET consultant, rehabilitating the GAMVET pharmacies, or recruiting an international consultant to carry out the credit study. One distinct advantage of "partnering" an implementing agency like the DLS with a reputable international NGO like VSF/Swiss is to by-pass some of these contracting mechanisms that government bureaucracies must necessarily follow.

Although the project funds were exceptionally well managed and monitored, the project management was not. One important reason for this was the DLS's decision to combine the project coordinator post with the DVO post as well as with the function of the national veterinarian counterpart for the VSF/Swiss veterinarians.

In spite of these administrative problems, the project achieved most of its major outputs and made progress on its most important objectives.

3. Success: Capacity Building, Environmental Impact, and Sustainability

a. Capacity Building: Overall GAM/93/004 was a success in terms of its impact on capacity building of the Central River Division livestock producers and the livestock

assistants that it was designed to benefit. The project has also helped the DLS conceptualize a national model for participatory livestock extension services that has great promise.

b. Environmental Impact: The project's compost pen with improved feeding practices programme has the potential for having a major positive environmental impact by increasing soil fertility. The project's effort to promote safer, more hygienic management of waste at thirteen slaughtering sites has had a positive impact on the environment at these settlements.

c. Sustainability: The key issue facing the project today is how to sustain these substantial PRODUCTS AND PROCESSES (capacity building, technologies, positive environmental impacts, training methodology, and the YBK Training and Demonstration Center).

GAM/93/004 has invested important efforts in the development of human resources in terms of Livestock Assistant, farmer, butcher and pharmacist training. The team is of the opinion that this is an important basis for sustainability of the farmer extension programme and for increasing livestock health and marketing (Project Objectives 1 and 2). The current system of animators, engaged directly by the project to work together with the Livestock Assistants at farmer level, is not sustainable in its present form. Here the collaboration with existing NGOs with experience in community development is needed to provide the necessary sustainability. Given the high levels of informal collaboration that already exist between the project and the NGO Action Aid, we are confident that this type of collaboration could be formalized within a relatively short period of time.

Similarly, although the YBK Training and Demonstration Center at YBK has emerged as a major regional training center and has the prospect of playing an important national role, its current set-up cannot be assured without some sort of clarification of its management and teaching structures. Especially important is the establishment of a financial plan to enable the Center to recoup funds earned from training since past experience has shown that the national budget does not provide sufficient funds for proper operation and maintenance of facilities and equipment. In response to group discussions on this topic, the YBK management team prepared a draft financial plan that outlines potential income sources, operating, and maintenance costs. Based on this original estimate, the evaluation team feels that some sort of sustainable funding base could be developed.

The team concludes that although GAMVET has made substantial progress toward its goal of becoming a financially stable private company, it is not yet fully sustainable. If, however, the GAMVET Board of Directors acts on the management consultant's recommendations during the November workshop and board meeting, the prospects for sustainability can be improved in a relatively short period of time.

VI. RECOMMENDATIONS

The previous section on Results (Section IV) presents a detailed list of short and medium-term actions that are needed to strengthen the sustainability of specific project outputs. When taken as a group, these activities can be summarized into seven major recommendations and an eighth recommendation to extend project funding for one year. The expected impact of the evaluation team's recommendations must be viewed in the broader context of the interlinking spheres necessary to support sustainable agricultural development (Figure VI.1).

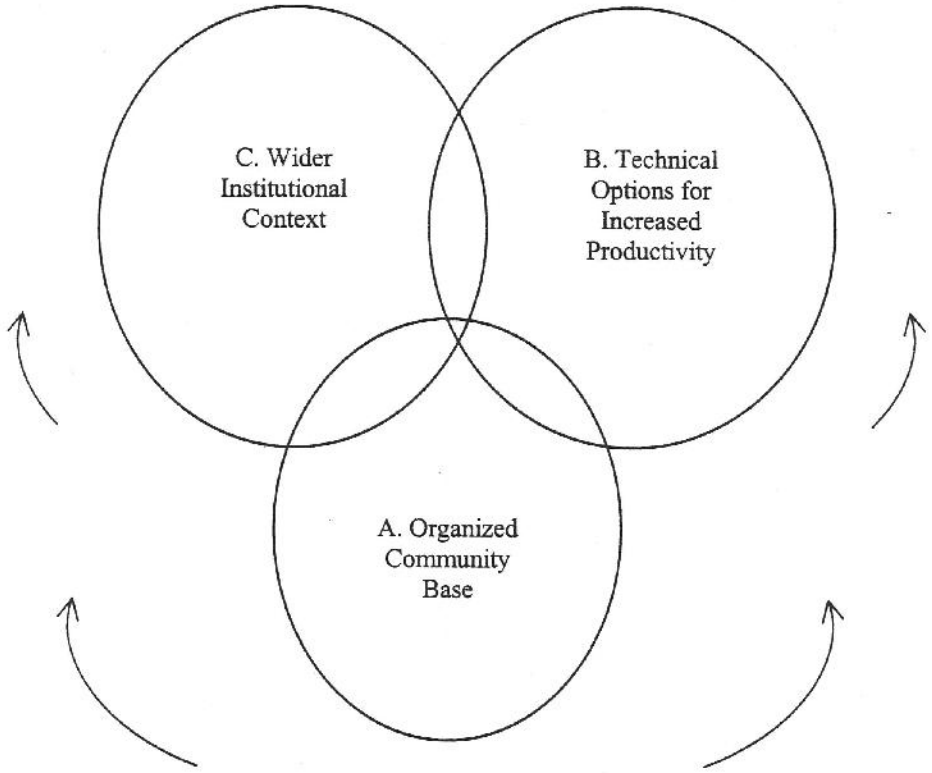



Figure VI.1. Interlinking Spheres Necessary to Support Sustainable Development