
Regional Project on Sustainable Management of Endemic Ruminant Livestock in West Africa (PROGEBE)



Terminal Evaluation Report of Sustainable Management of Globally Significant Endemic Ruminant Livestock of West Africa

GEF Project ID: PIMS 1119
UNDP Project ID: 00046252
UNOPS Project ID: 57220

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Project Title: Sustainable Management of Globally Significant Endemic Ruminant Livestock of West Africa; GEF Project PIMs #1119; 00046252 UNDP Project ID, 57220 UNOPS ID

Evaluation Time Frame and Date of Report: September 15, 2014-December 31, 2014

Region and Countries in the project: West Africa: (GAM) the Gambia, (GUI) Guinea, (MLI) Mali, (SEN) Senegal

GEF Operational Program/Strategic Program: *SP2—Mainstreaming biodiversity*

Executing Agencies: UNOPS is executing agency for GEF and ITC for the AfDB

Government Coordinating Agency: Ministries in charge of Livestock

Management and Implementation Arrangements: GEF and AfDB are the funding agencies; UNDP is the GEF Agency; UNOPS is the executing agency for GEF funds, on behalf of and in collaboration with beneficiary governments, and for funds which are availed through UNDP and under UNDP's supervision; ITC is the executing agency for the AfDB funds avail to it at the regional level, whereas Livestock Services in the beneficiary countries are the national executing agencies for funds availed at the national level; ILRI is but a sub-contractor under the GEF project; AfDB, ITC and ILRI are also co-financiers of the GEF project.

Project Period: 2005-2015

Evaluation Team Members:

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Project Summary Tables:

Project Title:	Sustainable Management of Globally Significant Endemic Ruminant Livestock of West Africa (PROGEBE)		
UNDP GEF Project ID:	PIMS 1119 (GEF Project ID 1053)		at endorsement (Million US\$)
AfDB Project SAP Code	P-Z1-AAE-004 (ITC, The Gambia et Guinea) P-Z1-AAE-O10 (Senegal) P-Z1-AAE-O09 (Mali)	AfDB total: broken down as:	\$29.767 239M
AfDB Grant number	2100155006866 (CIT, the Gambia & Guinea)	(i) AfDB Grant	\$15M (10,240,000 UA)
AfDB Loan number	2100150016493 (Mali) 2100150016494 (Senegal)	(ii) AfDB loan	\$14.3M (9,760,000 UA)
UNDP Project ID:	00046252	GEF financing:	\$10.0M
UNOPS Project ID	57220		
UNDP-Mali Project Award	54953		
Country:	the Gambia, Guinea, Mali, and Senegal	IA/EA own:	0
Region:	West Africa	Government:	\$3.4M
Focal Area:	Biodiversity	Other ITC, ILRI	.3 Million USD for ITC and 1.1. Million for ILRI
AfDB Division	OSAN4/OSAN2	Total Co-financing:	\$13.4
FA Objectives, (OP/SP):	GEF Strategic objectives: BD-2 Mainstreaming Biodiversity in production.	Total Co-financing:	\$36.230.000
Executing Agency:	UNOPS/ITC	Total Project Cost:	\$42.6M
Other Partners involved:	ILRI, ITC, FAO	ProDoc Signature (date project began):	June 29, 2007
		AfDB Grant signature date	June 30, 2006
		AfDB Loan signature date	October 16, 2006
		(Operational) Closing Date:	Actual: GEF: June 2015
		Proposed: GEF: Mid 2016 AfDB: 2013	Grant: December 2014 Senegal Loan: June 2015 Mali Loan: December14

Acronyms and Abbreviations

AfDB	African Development Bank
AnGR	Animal Genetic Resources
APR	Annual Project Review
AWPB	Annual Work Plan and Budget
CBD	United Nations Convention on Biological Diversity
CBO	Community Based Organization
CC	Climate Change
CEDEAO	Communauté Economique des Etats d'Afrique de l'Ouest (Economic Community of West African States)
CGIAR	Consultative Group on International Agriculture Research (includes also ILRI).
CILSS	Comité Inter-Etat pour Lutte contre la Sécheresse au Sahel (Inter-State Committee to Combat Desertification in the Sahel)
CIRAD	Centre de Coopération Internationale en Recherche Agronomique pour le Développement (Agricultural Research Center for International Development) a French institution
CIRDES	Centre International de Recherche-Développement sur l'Élevage en zone Subhumide (International Center for Livestock Research and Development in Sub-humid Zones) a regional institution
CORAF/WECARD	Conseil Ouest et Centre Africain pour la Recherche et le Développement Agricoles (West and Central African Council for Agricultural Research and Development)
CRZ	Centre de Recherche Zootechnique (Zoo technical Research Centre)
CSE	Centre de Suivi Ecologique (Zootechnic Research Center)
DIREL	Direction de l'Élevage (Department of Livestock), Senegal
DLS	Department of Livestock Services (The Gambia)
DNAMR	Direction National de l'Appui au Monde Rural (Mali)
DNE	Direction National de l'Élevage (Guinea)
DOE	Department of Environment
ECOWAS	Economic Community of West African States
EDPA	Environment, Development and African Perspectives
ERL	Endemic Ruminant Livestock
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FARA	Forum for Agricultural Research in Africa (Forum Africain pour la Recherche Agricole)
TE	Terminal Evaluation
GEF	Global Environment Facility
GIS	Geographic Information Systems
ICRAF	International Center for Research in Agro forestry
ICRISAT	International Crops Research Institute for the Semi-Arid Tropics
ILRI	International Livestock Research Institute
ITC	International Trypanotolerance Centre
LMB	Livestock Marketing Board
LSC	Local Steering Committee
LU(P)	Land Use (Plan)
M&E	Monitoring and Evaluation
MDGs	Millennium Development Goals

MoA	Memorandum of Agreement
MoU	Memorandum of Understanding
MTR	Mid-Term Review
NAPCD	National Action Programme to Combat Desertification
NAR	National Agricultural Research Centers
NBSAP	National Biodiversity Strategy and Action Plans
NCU	National Coordination Unit
NEAP	National Environmental Action Plan
NEPAD	New Partnership for Africa's Development
NGO	Non-Government Organization
NR(M)	Natural Resources (Management)
NSC	National Steering Committee
NTSC	National Technical Sub-Committee
OMVS	Organisation pour la Mise en Valeur du Fleuve Sénégal
PAC	Project Appraisal Committee
PACE	Programme Africain de Lutte contre les Epizooties (African Program for the Fight against Epizootics)
PARC	Pan African Rinderpest Campaign
PAT	Plan d'Aménagement du Terroir
PDF	Project Development Facility
PES	Payment for Environmental Services
PIF	Project Identification Form
PIR	Project Implementation Review
PPR	Principal Project Representative (PPR)
POAS	Plan d'Occupation et d'Aménagement des Sols
PROCORDEL	Programme Coordonné de Recherche Développement sur l'Elevage en Afrique de l'Ouest (Research and Development Project for Livestock Farming in West Africa)
ProDoc	Project Document
QPR	Quarterly Project Report
R&D	Research and Development
RCU	Regional Coordination Unit
RSC	Regional Steering Committee
RTSC	Regional Technical Sub-Committee
SLSC	Site Level Steering Committee
TA	Technical Advisor
TC	Technical Committee
TCP	Technical Cooperation Programme
ToR	Terms of Reference
UEMOA	West African Economic and Monetary Union
UNCBD	United Nations Convention on Biodiversity
UNCCD	United Nations Convention to Combat Desertification
UNCDF	United Nations Capital Development Fund
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNOPS	United Nations Office for Projects Services

Executive Summary

This project constitutes a significant regional partnership between the Global Environment Facility (GEF), the African Development Bank (AfDB) and United Nations Development Programme (UNDP), and the governments of the Gambia, Guinea, Mali and Senegal. The intension was to implement an integrated program aimed at removing existing barriers to the in-situ conservation of three priority endemic ruminant livestock (ERL) species-*N'dama cattle*, *Djallonké sheep*, and *the West African dwarf goat* to improve their productivity. The GEF project components focus was on testing models for community-based conservation and management of critical habitat for these species in order to demonstrate strategies for preserving the unique genetic trait/habitat complexes that are of global significance. The overall project design was experimental and innovative in terms of the partnership arrangements, the implementation model (with AfDB and ILRI), the regional , national and community level development approach focused on tapping into specialism's and knowledge across the social and environmental, economic sciences, use of cost benefit analysis CBA and efforts at instilling dynamic regional and national learning platforms. Carefully managed over 8 years, it has successfully tested the unique link between endemic livestock and the conservation of natural resources. The project has taken forward a scientifically rooted inquiry, developing, and testing an integrated and innovative development approach to endemic livestock conservation and natural resource management that simultaneously addresses livestock breeding and productivity, market development and economic policies, incentives and distortions, traditional and evolving patterns of resource use and land tenure, policies and legal frameworks, and information sharing and communication at the national, regional, and international levels

A key feature of the pilot has been its decentralized planning focus on the endemic ruminant livestock ERL that considers the importance of investing in a sustainably managed trypanosomiasis tolerant animal resource as a livelihood asset to which the majority in the West African society have been historically linked. Key features notable include: the attention on upgrading and conserving habitats for ERL have incentivized collective local planning for natural resource management and conservation (POIS), the worthwhile investments in tangible infrastructure 'works', the model being scaled within secondary sites to demonstrate success, institutional capacity strengthening 'by doing' and demonstration of the local and national enabling environment for systemic (institutional) ERL- NRM. The regional focus on formalizing the livestock market and improving the value chain for ERL and ERL products are thus proven as part of the enabling environment. In addition, notable for its contribution to the longer term project sustainability is the Sub-Regional knowledge sharing network Animal Genetic Resources in West Africa (S-RFP-AnGR-WA) is an excellent regional project result prioritized for support to the longer term capacity strengthening with learning resources and ongoing communication platform needs of the growing regional ERL – NRM community

The approach has been useful for catalyzing positive changes towards community resilience, including such fundamentals means of facilitating trust (in and between communities), the emphasis on local aid coordination through ERL-NRM innovation platforms, prioritizing longer term learning and systemic changes. TE firmly believe the approach can be taken forward with consideration given to it for its contribution by the regional and global development banks in particular.

Execution and Implementation Arrangements

GEF and AfDB are the funding agencies; UNDP is the GEF Agency; UNOPS is the executing agency and responsible for the use of GEF funds, on behalf of and in collaboration with beneficiary governments, and for funds which are availed through UNDP and under UNDP's supervision; the International Trypanotolerance Centre (ITC) is the executing agency for the AfDB funds available to it at the regional level, whereas Livestock Services in the beneficiary countries is the national executing agency for funds availed at the national level, and ILRI was a sub-contractor under the GEF project. AfDB, ITC, and the International Livestock Research Institute (ILRI) are also co-financiers of the GEF project. The two main financial contributors (donors AfDB and GEF) selected different executing agencies but agreed on common implementation arrangements within the ITC. UNOPS was selected implementer of the UNDP/GEF component. The AfDB component was executed at regional level by the ITC in the Gambia and the UNDP/GEF agreed to be hosted in agreement with the partners for the sake of project integration and aimed to augment the capacity for similar work). At the national level, implementation was by the national governmental agencies responsible for livestock in the four project countries: Department of Livestock Services (the Gambia), Direction Nationale de l'Elevage (Guinea), Direction Nationale de l'Elevage et de la Pêche (Mali), and Direction de l'Elevage (Senegal).

The execution and implementation arrangements were unique and also complex. Key differences expressing this uniqueness start with the fact that UNDP-supported regional GEF projects are quite different from national execution in that they generally require a greater role of the GEF RTA in the design, monitoring of the technical content. Two major donors (The AfDB and the GEF, with UNDP as the GEF implementing agency) selected different executing agencies, but agreed on common implementation arrangements. This resulted in different, but complementary, goals (or development objectives) in two separate project documents. The project implementation has generated interesting learning in this regard, in essence that the approach decisions and adaptive management efforts taken to deal with the nature of the partnership have been critical to this project's success (see section on implementation arrangements for further elaboration).

An informal agreement for implementation was made that Afdb would focus on implementing components 1 and 2 and the GEF funds would be prioritized on implementing outcomes 3-6. As such, the initial project implementation exercises required excellence in project adaptive management (project manager).

The AfDB Appraisal report has three *components* while the UNDP/GEF ProDoc has five *expected outcomes*¹. An integrated logical framework was agreed upon post inception meeting and approved by the UNDP/GEF Mid-Term Evaluation and used to monitor performance toward the expected results of the partnership and the project expected outcomes, increased to six (outlined below). Adaptive management was instrumental as flexibility was needed in order to develop an integrated log frame, which became a common tool for project management at three levels of implementation.

The six strategic interventions lines (Outcomes) identified in the integrated logical framework which became the guiding framework for results and has been vetted by the GEF at MTE are as follows:

SIL 1: Preservation of genetic characterization and improvement of production and productivity of ERL,

¹ GEF and AfDB have their own project documents: the ProDoc for UNDP/GEF and the Project Appraisal Report for the AfDB. AfDB developed its 2005 project Appraisal Report on the basis of the GEF Approved Brief and Executing Summary from July 2004. Both documents departed from the same official documents that were produced to obtain the GEF Council approval of the project. Although these had common objectives, they did reflect different approaches.

SIL 2: Improvement of the valorization of the ERL and its products,
SIL 3: Sustainable management of ERL and its ecosystem,
SIL 4: Legal, policy and institutional frameworks,
SIL 5: Cooperation, knowledge management, exchanges and coordination,
SIL 6: Project management.

Relevance

The GEF and AfDB project components are complementary and, while they do not share the same focus, they do target ERL and their keepers. The main reason is economically linked to the generally lower productivity of ERL. The strategy is recognizing that excessive habitat degradation would create a different suite of problems to breeders, including difficulties in finding water and green pastures. It is assumed that with these challenges, the option of improved ERL roaming conserved habitats is more economically attractive to regional breeders. This is best formulated in the terms given by the UNDP/GEF ProDoc, in situ conservation of endemic ruminant livestock, their unique genetic characteristics and their habitat because one does not go without the other. Without habitat conservation, not only will the N'dama cattle be replaced by non-trypanotolerant Sahelian animals, but local people will lose their livelihoods, and the region will lose its biodiversity. Mali is an example of ERL habitats which are under threat. Further, that habitat conservation is pursued as a parallel objective is because the GEF investment in conservation would not be restricted to the biodiversity enshrined in the ERL. It also focused on ecosystems and larger habitats, given the symbiotic relationship between the livestock, the habitats, and the herders.

The UNDP/GEF project goal to sustainably use the biodiversity that the livestock represents and its natural habitats in West Africa is thus highly relevant for the region. In the pilots visited by TE, there is evidence (outlined in this report and its annexes, and the reports of all TE meetings including the testimonials from beneficiaries and local stakeholders) that show that project activities have contributed to conserve the habitat and biodiversity of endemic ruminant livestock and improved their productivity. Furthermore, the GEF project objective *"to establish effective models for community-based management of endemic ruminant livestock and its habitats at project sites and strengthen production, market, and policy environment in support of these breeds"* has been positively tested and is demonstrating impact on the local environmental situation and directly contributing to the development outcome through targeted investments in human resources and small scale infrastructure.

For GEF investments directed at innovative community based technologies and imparting good practices in natural resources management, notable results included, governments planning NRM with local communities (POAS)² capacity strengthening, ecological sensitization and education, review of policies for local engagement in sustainable land use planning and ecologically beneficial low technological innovations. Briefly, all marketing infrastructure and capacity building has been implemented smoothly in primary and secondary sites. Notably, the work on local land use planning which was not a primary focus of the project, became so through adaptive management and monitoring for results. The national project managers also picked up on these initiatives to develop local conventions in line with local law and customs, formalized by MoUs with national institutions. This work also prioritized learning services for strengthening capacity on GIS mapping and finalization of community land use plan (POAS). This has been highly satisfactory (and very much in line with UNDP/GEF project development goals). National level learning institutional / scientific collaboration protocols have also been signed for the following institutions: DNEF for Mali, CSE for Senegal, NEA for the Gambia, and DNEF for Guinea.

² A flagship result of the NRM aspect of the project has been in the decentralized and participatory community based planning approach (POAS), aimed at empowering local user groups and incorporating local knowledge, imparting skills, ownership, and cross sectoral responsibility in the sustainable management of the natural resources.

National follow up should include efforts to strengthen the capacities of national institutions and enabling environment for local level implementation of ERL-NRM participatory planning (i.e. POAS), and strengthening extension services to continue to facilitate the participatory land-use planning. The results-based implementation (see monitoring section) is also noted as a major success factor but the result will ultimately in the national uptake post project

A key lesson learned, is that without financial backing, a sustainability plan, the risk of under-appreciation of the value of goods by both individuals and communities is increased and that while scaling of the NRM approach can be done without significant resources, where local communities contributed to alternative sustainable land practices and small works (rehabilitation of water points) themselves, even contributing financially, these were more effective.

Many efficient but easy-to-implement technologies, such as improved habitat, feeding, etc., that have been introduced do not need a great investment to be scaled by the relevant government department, but the technologies will need to be transferred effectively by the government departments and extension workers. Investments in institutional capacity development for this are the required follow up at the national, district and municipal levels. Not all actions initiated by the project in the primary sites can be copied in the secondary sites without more financial support for longer term dynamic learning initiatives to support sustained behavior changes.

For greater results, the UNDP/GEF investment can be continued nationally and regionally with longer term and systemic investment in human capital and especially with instilling the ERL NRM approach in government agencies.

Expected Results

The project aimed to support the conservation of the trypanotolerant endemic ruminant livestock (ERL and its habitat, under threat of intrusion by other breeds and lack of management. Under the intact local ecosystem conditions, these ERL are able to produce with little or no veterinary care, while other breeds die without this care. The underlying assumption was that along with the increased productivity of these ERL through a good production and selection environment, the incomes will improve for their raisers, who will then be less interested in acquiring other breeds. The regional economy would benefit from the increased financial volume and the increased availability of animal proteins. Based on the project development objective, the project stakeholders represented at the inception workshop approved six strategic lines (SIL), merging the project result areas (see below with a list of key project results) as defined by GEF and AfDB as follows:

PROGEBE Strategic Intervention Line I: Preservation of genetic characteristics and improvement of endemic ruminant livestock production and productivity--ERL characteristics are conserved and their production and productivity sustainably improved: SIL 1: one breeding program for cattle, sheep, and goats per country, except for Guinea, which has two for cattle. Hence breeding programs would be five for cattle, four for sheep, and four for goats.

PROGEBE Strategic Intervention Line II: Improvement of the valorization of endemic ruminant livestock and its products--Commercialization and marketing systems for endemic ruminant livestock and livestock products are improved: SIL-2: After appropriate training, associations of professionals were given responsibility of managing the use and maintenance of 19 livestock markets, 17 slaughter areas/houses, 14 well equipped small dairy processing units, and over 90 constructed water points with drinking troughs

(one third with borehole and solar powered pump). Trade in ERL and processed milk increased, as well as income from people involved directly or who benefited in some way from the increased economic activity. SIL-3: NRM was implemented by participatory establishment of 15 POAS in the primary and secondary project sites.

PROGEBE Strategic Intervention Line III: Sustainable management of endemic ruminant livestock ecosystems natural resources and ecosystems in project sites conserved and sustainably used, based on a community and integrated approach to the management of ERL and its habitats. The project institute a new planning framework that enables participation of resource users in a collective way to undertake consensus based decision making and agreements for natural resources management. The planning format entitled POAS (Annex- full description of POAS implementation in Mali provided by NCU) provided a platform for the consensus and agreements needed for the voluntary creation of livestock roads, firewalls, and brigades fighting bush-fires and committees for management and monitoring, activities that would provide benefit and foster resilience within the entire community. This reduced conflict and notably across all project sites, bush-fires. The effect on wildlife and flora (RN) is yet to be quantified, but the community benefits increased, together with the motivation for NRM, through the sale of products, such as honey, aTER the introduction of new technologies. The project has supported the establishment of 130 CBOs, including cooperatives such as the N'Dama cooperative in Kolda on ERL and NRM.

PROGEBE Strategic Intervention Line IV: Legal, policy and institutional frameworks were established and implemented at the local, national, and sub-regional level for in-situ conservation, production, and marketing of endemic ruminant livestock in the four targeted countries. National studies on policy, legislation, and legal frameworks related to ERL were undertaken in all countries and appropriately documented with national sharing and validation workshops held. The activities resulted in impact on national regulations in four countries at the start of a regional network for ERL in collaboration with FAO, UA-BAR, and CORAF/WECARD and in a plan to revitalize ITC to become WALIC.

PROGEBE Strategic Intervention Line V: Cooperation, knowledge management, exchanges and coordination—a sub-regional system for cooperation, information exchange, and coordinated support for the sustainable management of endemic ruminant livestock is established and operational. SIL-4: This SIL was implemented through workshops and advocacy; SIL-5: This SIL aimed at Knowledge Management and supported the training, workshops and advocacies. For the latter, it used local radio and produced several videos. The Sub-Regional Focal Point on Animal Genetic Resources in West Africa (S-RFP-AnGR-WA) is a critical input for the regional sustainability of this project.

PROGEBE Strategic Intervention Line VI: Project management—the project has been effectively managed, implemented, monitored, and supervised in the four targeted countries. SIL-6: The project focused successfully on a good disbursement rate. By June 30, 2015 all marketing and processing infrastructure will be completed and practiced for at least one year. In addition by then all national sustainable strategies will have been approved by the respective governments and the model will have been published. The breeding programs are fully operational in the four countries, in particular in the Gambia and Senegal and in Mali; Results include a substitution of ERL by other races... Also noted by TE, has been that the PROGEBE approach and strategy is being scaled up at the secondary sites as planned and that new projects are in fact adopting the PROGEBE planning approach in their monitoring and evaluation (WB CORAF regional project) (PROGEBE Project Manager, Site visits). The need is now for this all to be strengthened and sustained by the governments.

Key lessons learned: Relevance

1. Livestock project design: There was no threat to the ERL populations per se, though. However, in Mali a gradual substitution of ERL is happening by other species. There is a threat to their habitat, the sub-humid forested savanna, from unsustainable practices. Therefore, linking ERL to NRM, while giving responsibility to the users of resources and creating groups for management and production, contributes to positive impact on animal production and natural resources (i.e. conservation of ERL and its habitat), economic development, food security, and poverty alleviation in the four countries.
2. Livestock improvement: The project provided a basket of livestock and livestock habitats services (environmental, health related) and production technologies, including prophylaxis healthcare, dry season and mineral feeding, improved housing for small ruminants in particular, rangeland management and improvement, and farmers' capacitating, among others. In herd monitoring, it is demonstrated to be the right strategy to improve ruminant production and farmers' incomes. However, the free provision of fencing material for fodder gardens and community forests, as well as the focus on the survey, instead of supporting all farmers with appropriate herd management tools, reduces chances for autonomous replication and out scaling. Many and various capacity building activities, including modular training on various herd management good husbandry practices/selection, were carried out in the countries.
3. Project funding: Linking investments in infrastructure to the capacity building of the professional organizations under these four contexts contributes to improve the value chains of animal products and to increase volumes of marketed animals, meat, and milk. To increase chances of sustainability, future projects can include some consideration on the physical and also financial participation of the beneficiaries of commercial infrastructures (small dairy processing units, livestock markets, slaughter houses, and meat retail points).
4. Project structure, implementation, and evaluation: The MTE of GEF and AfDB recommended creating an ad hoc technical steering committee to advise the Regional Steering Committee and the RCU. A technical steering committee might have supported project management. Note, however, that project did institute many activities for scientific advice, including within the regional steering committees, as there were representatives of technical institutions, such ILRI

Lesson learned: Effectiveness and Efficiency

1. Natural Resources Management:

- A. Linking communities to extension services through community-based facilitators and collaborative and participatory planning approaches supports the conservation of ERL habitat in the four countries.
- B. The project provided a local planning platform mechanism (created trust and collaboration) for community and government dialogues through facilitators called 'animators' for creating local rules and committees for managing NR, monitoring NRM, and transhumant reception.
- C. The approach using (female) village-level animators as facilitators between community-based user groups is building trust for constructive collaboration for ecosystem and land management. It is also a good practice for low technology sharing and supporting technology uptake.
- D. Accompanying measures, such as improving beekeeping, local production of mineral licks, creating, or improving water points and making these accessible by livestock roads, are important tools for successful local conventions on NRM.

E. Focus on creating or supporting national institutions with capacity to carry along the implementation of POAS and ERL breeding may be a next step. A good practice noted by TE in the region is the code for the agro-silvo-pastoral system of Senegal which links all these aspects. However, this code also lacks appropriate financial and institutional instruments. The project has developed partnerships and synergies with relevant national institutions to implement POAS and ERL breeding related activities and contributed greatly to their strengthening.

F. GEF global might promote investments in research and the creation of enterprises able to produce both high quality dry toilets and decomposable material and adapted equipment for packaging of milk and forestry products in Africa, Asia, and South America.

G. Support for ERL breeding by the project included also training of citizens at postgraduate levels in overseas universities. Rehabilitation and support to the operations of Breeding Centers of ITC in the Gambia, Madina Diassa in Mali, CRZ and N'Dama Cooperative in Senegal and Boke and Famoïla CAEs are good examples in this regard.

2. Endemic Livestock Resources

Improving livestock through selection and breeding is a long term initiative. The non-allocation of funding to CIRDES for the ex-situ conservation through storing male sperm in-cryo was in agreement with the ProDoc's goal of in-situ conservation. The project didn't do a molecular genotypic characterisation that, combined with the herd monitoring and progeny recording, at medium term could have accelerated the genetic improvement of the trypanotolerant ERL (Gibson, 2003). This is valid in particular for ERL's aimed sustainable management which is more than conservation. Accelerated breeding supports sustainable management. For N'dama accelerated breeding would strengthen their competitiveness with Zebu and exotic breeds and thus avoid that farmers replace the N'dama. According to the AfDB-PAR, ILRI should have done the genetic characterization. Thus, one of the expected results according to the ProDoc (i) endemic livestock classified and inventoried using genetic markers (supplemented by indigenous systems of classification)" (ProDoc page 13), was not achieved, while according to ProDoc and TE this inventory should have started.

Based on the results of the phenotypic characterization which has shown that more than 95% are ERL type and are not at risk based on all existing standards, the project has decided that phenotypic characterization and herd monitoring were sufficient at present and that genetic characterization will not be of added value. This was endorsed by the Regional Steering Committee."

3. Cost Benefit Analysis

Financial and economic evidence is needed to convince policy and decision makers to support consolidation and out scaling of the pilot. Such policy advocacy for out scaling the POAS and the herd management needs a financial Cost Benefit Analysis (CBA) as the basic qualitative analyses that has been provided by ILRI does not convince evaluators of quality. An objective CBA can be done by four-country teams composed of a livestock and environmental specialist under guidance of an international economist with knowledge of "willingness to pay" for environmental services. Results should be published in a scientific journal article. Team also noted that CBA can be though about also a modality for implementation (payment for services approach) in similar ERL – NRM projects.

4. Project design

During the project preparation phase, ILRI, a scientific agency, was bound to be the executing agency for UNDP/GEF, but it declined this role. UNDP/GEF made a strategic and advantageous choice of having UNOPS as the executing agency, while ILRI became major subcontractor with a role to deliver technical/scientific inputs. Having a scientific implementing partner may strengthen a project but only if that partner can also focus on the ongoing capacity building needs of the regional and national experts, on supporting the latter with appropriate resources (bi-lingual experts), and on being a partner for dynamic monitoring and sustainability of the efforts. The learning is about the role of science, policy and practice and how the design considered the intersection of the three for longer term sustainable results. The UNOPS management made corrections in this regard and actively monitored the involvement of the national technical institutions (TE meet with the local technical implementing partners in Mali, Senegal and Gambia) to ensure scientific integrity, learning and efforts towards sustainable local monitoring systems.

5. Implementation of infrastructure and works

The design and implementation has been done according to relevant standards, national and AfDB rules and regulations and based on communities' needs and full involvement but engineering and architectural standards still apply. Even with the best project intensions, local contractors build outside of engineering and architectural standards. A collection of strengths and of the project in line with the internal capitalization exercise is included (Annex H).

Although it is normal that infrastructure development and design cannot be uniform: the countries have different eco-physical conditions. There are differences in soil, climate, rain etc. Kolda and Guinea forestry for instance is quite different. For future UNDP/GEF project involving large focus on infrastructure and 'works', the learning is to include in the project management unit a supervisory role of either an engineer and/or lead project architect for quality assurance and to guidance on request to all local design processes including to give contractor's and consider develop a regional basic standard.

6. Monitoring and Evaluation ME

The Monitoring and Evaluation system for this project was highly satisfactory. During the lengthy period that transpired between the time the project was conceived to the beginning of implementation (2003-2006), significant events transpired that challenged the overall results and design architecture, including the role of ILRI as a scientific-based executing partner (declined), the decision to locate the project base from Mali to Gambia, and the addition of ICT as execution agency. The initial project assumptions were thus challenged by these events, and it was the approach taken by the RCU to deal with significant challenges and develop an ME system to deal with change and build consensus and a common results culture in a highly disperse group of implementing partners, including national and local counterparts across four unique country contexts. The ME system developed was based on the consensus and the development of an integrated log frame with targeted and persistent capacity building to support management, partners, and donor sensitization to using the integrated log frame in day-to-day work .It became a management tool at all levels which helped to build a common understanding of the overall project results from regional down to the village level. Another indicator was that in negotiating the log frame, it became an indicator heavy (AfDB) document, and the ability to monitor and use it in day-to-day work required a big effort--a pinnacle indicator of ME success.

7. Executing Agency/implementation agency

In view of the management arrangement, the scale of the time of project implementation, partnerships undertaking across the domains of science, development, policy and individual behavior changes, ideals and the numbers of staff (at three levels) was extensive and adaptive management and good project leadership has been very important in this project. The lessons on adaptive management can be taken forward. Results notwithstanding, to be noted for future projects involving two different big donors; GEF might consider advocating the appointment of two full-time financial officers, one operational coordinator, and one full-time project coordinator. The financial officers would be responsible for each donor's financial reporting requirement.

8. Sustainability

Sustainability of this project is addressed at regional, national and local levels. Regionally, the vision embedded in the project's design toward regional economic and sustainable development through the investment in and the formalization and growth of regional cooperation, and a market for ERL and NRM can be realized with the support of a strong regional scientific institution. This is necessary to sustain the breeding program and to continue the constructive knowledge sharing and networking regarding the ERL and NRM technology transfer. If so, it will help realize the end vision of a regional integration model for livestock and NRM through the development of a tested market for quality ERL products and NRM local cross- sectoral planning approaches and products. Institutional support for launching and operation of WALIC will help in filling up the regional institutional gap (to lead on ERL breeding programme and ERL market valorization support) identified. This is elaborated upon in this report. The uniqueness of the PROGEBE approach resulting from this partnership towards rural economic development is the specific link of investments in improving livestock and informal markets with a local environmental governance model that has now been tested in over 12 sites.

All countries have their own research centers and departments in charge of livestock and environment and so nationally. Even though the pilot's projects can be scaled, there are national efforts needed to continue to strengthen national and local capacities and to more aggressively review the institutional policy frameworks with a view towards sustainability and national and regional sustainable economic development. The next logical step is for governments, regional and national, local partners to develop concept papers. UNDP can help (see recommendations to this effect). Nationally, the project can be scaled with further government commitment, in particular to include institutional capacity strengthening and oversee the implementation of a concrete standard basket of technologies and NRM institutional planning framework, a key finding of the pilots in terms of what works.

The implementation journey and the results documented show that adaptive management was absolutely critical to the success of the pilots. The contracting of UNOPS was a critical objective actor for a complex regional and national context for project implementation. The GEF aspects of the PROGEBE project are complete. TE recommends small inputs be allocated between now and closure of project in April /June 2015 to conduct exercises to finalize in particular, a cost benefit analysis that includes end line valuation of ERL and NRM aspects and the final documentation of the results in scientific journals as credible evidence for policy. The scientific proven results will then be taken forward nationally and regionally.

9. Recommendations

The project's work has been highly satisfactory for linkage made between ERL and NRM as an approach for sustainable development in West Africa and for its effect on the primary beneficiaries (see table of beneficiaries impacted in stakeholder section) during implementation. In particular, the project has been successful due to the longer-term investments in the capacity of producers, technicians, and scientists in empowering community user groups to govern shared *livestock habitat and other natural resources*. A key for the transformative element has been the demonstration (in primary sites and secondary sites) for putting in place appropriate multi-stakeholder planning and regulatory practices and mechanism at community level for planning, the POAS as an ERL -NRM planning framework.

The project's work to link common interest institutions contributed to the establishment of the sub-regional network for ERL entitled the Sub-Regional Focal Point on Animal Genetic Resources in West Africa (S-RFP-AnGR-WA) and so is an excellent result. The Secretariat provided by PROGEBE involved an open and transparent process that led the participants of the N'djamena September 2014 meeting to select CORAF/WECARD as the new Secretary to the Focal Point. PROGEBE had done its best to ensure that ITC/WALIC will take over the Secretariat from the project (sponsoring its participation at all meetings), but unfortunately ITC did not meet the set criteria. It is also worthwhile to note that CORAF/WECARD is currently chairing ITC Board. ITC current weaknesses are solely due to its current situation.

To realize the end vision of a fully tested and documented regional integration model for improved ERL livestock production and NRM, adaptive management was critical for success of the pilot. The TE does recommend that small inputs are allocated between now and the actual closure of project in June 2015 to ensure sustainably (discussed further and outlined in report). The three key activities include:

1. to undertake in depth cost benefit analysis (that contains both ERL and NRM aspects)
2. To document the results in scientific journals. The evidence based results will then be ready to be taken forward nationally and regionally.
3. Small GEF inputs directed at supporting the development of national and regional concept plans that provides governments and regional institutions with clear strategies for next steps and key element of follow on national projects before the final closure of UNDP/GEF project in June 2015.

The UNDP national offices can help with this process to design concept notes building on this project successes. GEF regional resource might also be tapped to develop a strategy for regional follow up.

The key project end recommendations follow:

- **Out scale the PROGEBE Results for Optimal Regional Development.** Scaling-out is feasible as demonstrated by observed political will gained and project-generated learning and capacity building at all levels. The TE concludes that not realizing the scaling out of the integrated approach for ERL-NRM will increase risks for both biodiversity and social peace and ultimately sustainable development and that realization of the local level organizational capacity and scope and mandates of the host institutions at national and regional level are critically needed to be in place in order to take these results forward. Also notable has been that the PROGEBE approach and strategy is being scaled up at the secondary sites as planned and that new projects are adopting the PROGEBE planning approach in their monitoring and evaluation (WB CORAF regional project) (PROGEBE Project Manager). The need is now for this all to be strengthened and sustained by the governments

- **Branding of ERL.** Branding is important in breeding because of the related market value, and therefore choosing the fawn color of N'dama, as for the Zebu Maure and Azaouak, is crucial even if there's no hard evidence for the superiority of the color. Physical arguments: white skin is more sensitive to sunlight and therefore demonstrates skin diseases more often, and black accumulates more from the sun, while red seems to be a good intermediate; reason for which it's the branding color for many breeds globally. Most trypanotolerant ERL were held by crop farmers little aware of the importance of breeding and selection in livestock and mostly selling the fastest growing males first because of the better price they fetch. Therefore selection of bulls using genetic characterization can bring fast progress and make the N'dama and other trypanotolerant ERL competitive.
- **CBA assessment possibility for autonomous adoption of technologies.** Cost Benefit Analysis, or even just partial budget analysis, should be done on all technologies before proposing them to farmers. The project failed to do this, and to prevent mistakes in the consolidation phase by the national teams, the TE recommends to tender short term assignments for four national experts and an international team leader to collect reliable data for a partial budget analysis of the proposed package of technologies. Together with the qualitative information already gathered. This may provide valid arguments toward decision makers on budgets for consolidation and multiplication of the PROGEBE approach. Further advocacy of the value of CBA as the key project implementation modality 'approach' should be brought forward to the partners and to GEF global in particular as a key lesson learned for future ERL –NRM projects.
- **Economic CBA for advocacy among policy and decision makers.** A key positive result felt by a majority of the beneficiaries interviewed has been the reduction of conflicts between herders and crop farmers. The POAS for NRM management will also have positive effects on biodiversity and the availability of timber and non-timber products. The TE recommends to do a preliminary assessment of the aggregated benefits using the "willingness to pay" method in order to compose financial arguments for advocacy towards policy makers.
- **Resilience in the Sahel.** Historically, investments in recovery or maintenance of land productivity have demonstrated a high cost recovery rate. TE recommend GEF, UNDP and AfDB to advocate with the implementing agency of the project Resilience in the Sahel, which funding has been approved in October 2014, to learn from PROGEBE the experience especially in terms of the coupling of the conservation of ERL and its habitat through the participatory land-use management plans (POAS/PAT). Not replicating the integrated ERL-NRM approach will not only increase the risk to biodiversity and social peace, but also for regional food security and economic development.

Overall Rating is S.

Evaluation Ratings:		
1. Monitoring and Evaluation		Rating
M&E design at entry		S
M&E Plan Implementation		HS
Overall quality of M&E		HS
2. Execution and supervision		
Quality of UNDP Implementation (as GEF Agency, supervising the project)		HS
Quality of AfDB supervision		S
Quality of UNOPS Execution (as the Executing Agency for GEF funds)		HS
Quality of ITC Execution (as the Executing Agency for AfDB funds)		MS
Overall quality of Implementation (i.e. supervision)/Execution		HS
3. Assessment of Outcomes		
Relevance		HS
Effectiveness		HS
Efficiency		S
Coherence		S
Overall Project Outcome Rating and rating per SIL below:		S
1- SIL1: Preservation of genetic characterization and improvement of production and productivity of ERL		MS
2- SIL 2: Improvement of the valorization of the ERL and its products		S
3- SIL 3: Sustainable management of ERL and its ecosystem		HS
4- SIL 4: Legal, policy and institutional frameworks		MS
5- SIL 5: Cooperation, knowledge management, exchanges, and coordination		HS
6- SIL 6: Project management		HS
4. Sustainability		
Financial resources:		L
Socio-economic:		ML
Institutional framework and governance:		ML
Environmental:		ML
Gender mainstreaming:		ML
Overall likelihood of sustainability:		ML
Ratings for Outcomes, Effectiveness, Efficiency, M&E, I&E Execution	Sustainability ratings	Relevance ratings
6: Highly Satisfactory (HS): no shortcomings 5: Satisfactory (S): minor shortcomings 4: Moderately Satisfactory (MS) 3: Moderately Unsatisfactory (MU): significant shortcomings 2: Unsatisfactory (U): major problems 1: Highly Unsatisfactory (HU): severe problems	4. Likely (L): negligible risks to sustainability 3. Moderately Likely (ML): moderate risks 2. Moderately Unlikely (MU): significant risks 1. Unlikely (U): severe risks	2. Relevant (R) 1. Not relevant (NR) Impact Ratings: 3. Significant (S) 2. Minimal (M) 1. Negligible (N)
Additional ratings where relevant: Not Applicable (N/A) Unable to Assess (U/A)		

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Figure 1 Indicative map of project sites

1. Introduction

1.1. Purpose of the evaluation

In line with UNDP/GEF and AfDB Policy, GEF-funded projects are monitored and evaluated regularly. Through these exercises, the donors aim to promote accountability for achievement of their objectives by assessing results, effectiveness, processes, and performance of the partners involved in the GEF-supported activities to date and by making recommendations on improved likelihood for expected outcomes by making adjustments if needed. The results need to be monitored and evaluated for their contribution to global environmental benefits. The Terminal/Final Evaluation was conducted according to the guidance, rules, and procedures established by AfDB, UNDP, and GEF. The primary objective of the final evaluation is to assess the achievement of project results to draw lessons that can both improve the sustainability of benefits from this project and aid in the overall enhancement of UNDP/GEF and AfDB programming.

1.2. Scope and Methods

The evaluation methods were developed in accordance with the official 2012 GEF guidelines for conducting evaluations (GEF IEO website). The methods were closely guided by the specific criteria outlined in the Terms of Reference (ToR)³. (Annex 1). The TE evaluation objective was to document the overall project narrative and generate evidence-based information for the partners including all stakeholders and project beneficiaries that is credible, reliable, and useful, based on a mixture of participatory methodologies and desk study. As per the ToR, the overall objective of the evaluation has been to review project practice (management, implementation, monitoring) and to validate the results and impacts.

The evaluation methodology involved key stages, including (i) a preliminary desk study and document review; (ii) the development of an inception report presenting the structure of the evaluation (evaluation matrix, evaluation questions, indicators, sources of information, and means of collection); (iii) a mission program and an updated work plan for the rest of the evaluation process and interview protocols; (iv) missions in the Gambia, Mali, and Senegal to meet with various stakeholders of the project, including project teams, national partners, and beneficiaries (see final program listed in finalized inception report); (v) a document review and a detailed analysis of data collected; (vi) writing and submission of a draft report; and (vii) the production of a final report taking into account the various comments received. The evaluation was organized for focus on project formulation, approach to implementation, implementation and results, and finally impact. The evaluation framework is presented in the first deliverable, which was the methods and inception report. Questions were predesigned based on desk study and presented in the matrix, including specific to evaluation indicators, which allowed answering the various questions and sources of information to inform these indicators. This framework has structured the steps of information collection and analysis of data collected. The various findings of the evaluation team are presented below.

Limitations, including language and two different reporting requirements of the major donor partners, were dealt with by including two international evaluators on the team to cover requirements of both donors and both languages. Learning included on the unforeseen limitation of having two international consultants working with two report templates at the same time. The courtesy visits in three countries, though

³ The Terms of Reference (ToR) outlines an array of suggested methodologies and approaches to be implemented to ensure a comprehensive and useful study. This needs to be verified against the series of PIRs. The ProDoc was signed in Jun 2007, and it had an eight-year budget. Hence, the proposed closure date for the GEF project, as per ProDoc (and which was not explicitly stated) would be Jun 2015.

enriching, was time and energy consuming, and should be considered in future ToRs. In addition, putting two international consultants with different tasks together was in fact a limitation to individual methods, approaches, and special tasks as per each donor requirement. For the GEF component, it would have been better to have delegated national country and country context research and drafting support to UNDP/GEF consultant. This limitation was dealt with by providing the consultants with adequate time to do more in-depth research and writing exercise.

1.3. Structure of the Evaluation Report

The report has four sections: 1. Introduction; 2. Project Description and Development Context; 3. TE Findings, including Formulation/Strategy, Implementation, Results, Sustainability, and Mainstreaming; 4. Conclusions, Recommendations, and Lessons Learned and related annexes.

2. The Project and its Development Context

2.1. Project start and duration

In partnership with the Global Environment Facility (GEF), the African Development Bank (AfDB), and United Nations Development Program (UNDP), the governments of the Gambia, Guinea, Mali, and Senegal are currently implementing an integrated program to remove existing barriers to the in situ conservation of three priority endemic ruminant livestock species—N'dama cattle, Djallonké sheep, and the West African dwarf goat and to improve their productivity. In addition, the project will develop and implement models for community-based conservation and management of critical habitat for these species, thereby demonstrating strategies for preserving the unique genetic trait/habitat complexes that are of global significance.

The project was supposed to be implemented over a 10-year period for the GEF component and over a 6-year period for the AfDB component. In July 2004 an AfDB brief requested the feasibility study of the UNDP/GEF/ILRI proposal that included a budget; the feasibility study was delivered in October 2005. The ProDoc was signed June 29, 2007, and the AfDB Grant and Loan agreements were respectively on June 30 and October 16, 2006. However, implementation of the project only started effectively in January 2008, and the inception workshop was held in January 2009. The expected closing dates were end of 2016 for the GEF and end of 2013 for the AfDB. These closing dates have been revised December 30, 2014, for AfDB Grant (RCU, the Gambia, and Guinea) June 30, 2015, for Senegal AfDB Loan, December 30, 2014, for Mali AfDB Loan, and June 2015 for GEF component.

2.2. Problems the project sought to address

Livestock contributes significantly to livelihoods of rural populations in West Africa and plays a central role as an engine for development and sustainable food and nutritional security for both rural and peri-urban households (Agyemang, 2005). However, the trypanosomiasis disease is one of the major socio-economic constraints in the efforts of shaping the livelihood strategies in these regions (Kristjanson et al, 1999). Given that a significant area of the region is in humid and sub-humid zones, the region is highly infected by tsetse flies, a vector of trypanosomiasis, which affects both livestock and therewith livelihoods. Efforts to control the vector, such as using trypanocides to treat infected animals, spraying of tsetse infested areas (vector control), or clearing tsetse habitats, although successful for some time, often haven't reached the expected success. In addition to the uncertain efficacy of such practices, they engender high costs and

result in significant ecological impacts, both directly and indirectly,” the latter because they may contribute to the degradation of the environment/biodiversity⁴.

The use of endemic ruminant livestock (ERL), such as N'Dama cattle, Djallonké sheep, and West African dwarf goats, is seen as a better option to overcome the trypanosomiasis problem (Agyemang et al, 1991). These livestock breeds are well adapted and productive in tsetse infested areas, tolerant to heat, and resistant/resilient to helminthes and tick-borne diseases (Grace, 2005). They also have low nutritional and husbandry requirements which, along with the previous features, could be thought of as being preferred pro-poor options. Endemic breeds, despite their multiple adaptive attributes, are, however, often perceived by farmers as inferior in terms of productivity and marketing (Agyemang, 2005). Threats to these breeds include degradation and destruction of their natural habitat, as well as increased prevalence of zebu cattle and sahelian genotypes of small ruminants often perceived to be more productive because of their size only (UNDP, 2007).

2.3. Immediate and development objectives of the project

The GEF and AfDB projects have their own project documents: the ProDoc for UNDP/GEF and the Project Appraisal Report for the AfDB. Both documents departed from the same official document, the ProDoc produced to obtain the GEF Council approval of the project. They also have common objectives but reflect different approaches with regard to the problems identified in terms of the management of ERL in the beneficiary countries. The AfDB document has three components, while the UNDP/GEF ProDoc has five expected outcomes.

Table 1 PROGEBE's objectives and outcomes, as defined by AfDB and UNDP

	UNDP	AfDB
Development objective	Ensure sustainable populations of targeted endemic ruminant livestock breeds in four West African countries in order to improve rural economies and ensure the conservation of these breeds and their globally unique genetic traits.	Contribute to poverty reduction and improved food security in West Africa.
Specific objective	Establish effective models for community-based management of endemic ruminant livestock and their habitat at project pilot sites and strengthen production, market, and policy environments in support of these breeds.	Conserve the biodiversity of endemic ruminant livestock and increase their productivity.
Main Outcomes/Outputs	<ol style="list-style-type: none"> 1. Production and productivity of endemic ruminant livestock is sustainably improved; 2. Commercialization and marketing systems of endemic ruminant livestock and livestock products are strengthened; 3. Natural resources in project pilot sites are conserved and sustainably managed for the benefit of endemic ruminant livestock, ecosystem services, and human livelihoods; 4. Legal, policy, and institutional frameworks established at the local, national, and sub-regional level for <i>in situ</i> conservation of endemic ruminant livestock; 5. Project management. 	<ol style="list-style-type: none"> 1.Improvement of endemic livestock production systems; 2. Conservation of the natural habitat of endemic livestock; 3. Project management.

The project aims to support the development of models for community-based conservation and management of critical habitats for ERL and to demonstrate strategies for preserving the unique genetic trait/habitat complexes that are of global importance.

⁴ Pesticides affects the life cycle of many organisms other than just the noxious ones they were designed to attack. Many also persist in the environment with negative impacts on health and species (among them birds and endangered species).

The project's **development objective**, to which the GEF project will contribute, is "to ensure sustainable populations of targeted endemic ruminant livestock breeds in four West African countries in order to improve rural economies and ensure the conservation of these breeds and their globally unique genetic traits."

The **immediate objective** of the GEF project is to establish effective models for community-based management of endemic ruminant livestock and their habitat at project pilot sites and to strengthen production, market, and policy environments in support of these breeds.

The UNDP/GEF project has **6 expected outcomes, 19 expected outputs**, and 31 **indicators**, along with their associated annually determined activities, all of which will contribute toward achieving the project objective. The log frame has been revised from five to six outcomes.

Outcomes, Outputs as a result of integrating log frames

PROGEBE Strategic Intervention Line I: Preservation of genetic characteristics and improvement of endemic ruminant livestock production and productivity

- 1.1 ERL and their productive environment system are characterized;
- 1.2 Zoo-technical research centers are rehabilitated and equipped;
- 1.3 ERL genetic improvement system is implemented;
- 1.4 Capacities of stakeholders and partners are strengthened;
- 1.5. Capacities for participatory community management of livestock are strengthened.

PROGEBE Strategic Intervention Line II: Improvement of the valorization of endemic ruminant livestock and its products

- 2.1 Marketing opportunities and constraints in connection with endemic livestock producers are identified and addressed;
- 2.2 A market support and information system is put in place;
- 2.3 Community-based livestock marketing associations are identified, developed, and supported;
- 2.4 Marketing, distribution, and processing infrastructures for endemic ruminant livestock and livestock products are strengthened.

PROGEBE Strategic Intervention Line III: Sustainable management of endemic ruminant livestock ecosystems is occurring

- 3.1 Environmental monitoring and evaluation system is put in place and operational in the project sites of each country;
- 3.2 Capacities of local inhabitants, community-based organizations, and staff to develop and implement NRM strategies are strengthened;
- 3.3 Sustainable natural resources management practices are identified and enhanced at site level.

PROGEBE Strategic Intervention Line IV: Legal, policy, and institutional frameworks

- 4.1 Platforms for stakeholder participation in policy, regulation revisions, and development programs relevant to ERL preservation, development, trade, and management are in place and operational at project pilot site, national, and sub-regional levels;
- 4.2 Legal status of livestock actor's organizations is formalized.

PROGEBE Strategic Intervention Line V: Cooperation, knowledge management, exchanges, and coordination

5.1 Mechanisms for information sharing and lessons learned among project participants and for adaptive management based on lessons learned during project implementation are developed.

PROGEBE Strategic Intervention Line VI: Project management

6.1 Project management and monitoring and evaluation systems are put in place and operational;

6.2 Project system of information and communication is put in place and operational;

6.3 The coordination units and organs of supervision are put in place and operational.

2.4. Baseline Indicators

Baseline values and corresponding targets (see annex, final log frame) were input at project preparation and finalized during implementation. The project preparation mission set baseline indicators and preliminary values, finalized with technical support of ILRI during the project inception meeting. The baseline values were finally established and included into the log frame with the support of ILRI (contracted to deliver baseline values for four countries) in 2011. The integrated log frame in use since the project inception meeting was subsequently reviewed and formalized by the mid-term review (Annex I, See Afdb final report with log frame review). This aspect of the project implementation is discussed in detail in the section on design, partnerships, and results.

2.5. Main stakeholders

Participants included representatives of the national executing agencies, other national resource management agency personnel, GEF operational focal points, UNDP country office personnel from the four countries, and numerous international research, resource management, and donor agencies (including AfDB, FAO, ILRI, ITC, FARA, CIRAD, CIRDES, and CSE). Thus, numerous interested parties were involved in the pilot project preparation phase, including representatives of livestock herders, farmers, communities, NGOs, livestock market players, policy makers, researchers, resource management agencies, and international donors. At the project site level, intensive direct and group consultations were held with a cross-section of each community to discuss relevant issues pertaining to key objectives of the project. At the country level, a national steering committee was instituted in each country and charged with coordinating the elaboration of the project concept at the national level.

2.6. Results expected

Based on the project inception meeting and the expected results reported by key participants, including AfDB, ILRI, and UNDP/GEF, by the end of its ten-year period, the project will have produced the following results:

- a) models for community-based land use planning and sustainable natural resource management to ensure the conservation of ecosystems for endemic ruminant livestock;
- b) populations of purebred endemic ruminant livestock herds of the three target breeds maintained at twelve pilot project sites at a viable level with no decline compared to the baseline;
- c) at least a 15% increase in the relative share of three targeted endemic livestock breeds in herds of selected project pilot sites;
- d) productivity of purebred species enhanced through selective breeding and production improvements with a view to strengthening food security, increasing endemic livestock producers' incomes and enhancing incentives for *in situ* conservation;

- e) incentive schemes developed to foster optimal valorization of endemic livestock established, such as building up prestige for owners (through certification, fairs, and competitions) and better marketing and distribution of dairy products and crafts;
- f) off-take and exports of endemic purebreds increased to neighboring countries;
- g) a system of regional cooperation and exchanges developed relevant to endemic ruminant livestock;
- h) harmonized sub-regional policies and legal frameworks for livestock management, including transhumance (herd movements);
- i) classified and inventoried endemic livestock, using genetic markers (supplemented by indigenous systems of classification). Strengthening the capacities of all relevant actors to promote *in-situ* conservation of livestock and their habitat will be integrated across all of the project activities.

3. Findings

3.1. Project Design/Formulation

- **Analysis of LFA/Results Framework (project logic/strategy/Indicators)**

The project was a regional pilot experiment initiated by three key partners (AfDB, UNDP/GEF, and ILRI) based on understanding of the regional context and the collective political, economic, and scientific knowledge relating to the barriers to livestock production, infrastructure for development, and sustainable natural resources management. The three partners were very active in the region on related subjects. They engaged the cooperation of four governments to work together to develop, test, and strengthen capacity for an integrated approach to livestock conservation and management that simultaneously addresses livestock breeding and productivity, market development and economic policies, incentives, and distortions, traditional and evolving patterns of resource use and land tenure, policies and legal frameworks, and information sharing and communication at the national, regional, and international levels. ILRI, clearly a core partner in the scientific aspect of the pilot, took on an implementing partner role but as a subcontractor rather than primary implementing agent (the original idea, according to TE interviews with those involved in project formulation) and was to be contracted for the baseline and for scientific research studies. In retrospect, this arrangement has provided many lessons in design, also elaborated on in the results section and the section on monitoring.

A GEF ProDoc was finally signed by the governments of the four countries. The implementing agency, UNDP, chose UNOPS to be the executing agency of the GEF funds on June 29, 2007, following a lengthy formulation process that lasted seven years, undergoing major modifications (amount and distribution of co-financing, institutional framework). AfDB had approved grants and loans one year earlier. The resultant GEF ProDoc presents a good analysis of the context, threats, causes, and barriers to the conservation of ERL that the project intends to remove. The goal, objectives, expected results, and project activities funded by the GEF are also well defined. The original project was initiated according to two distinct donor project documents and development philosophies. (AfDB is very quantitative, economy-oriented, and focused on infrastructure and construction, while the GEF/UNDP approach is more in tune with institutional change management, instilling local participation, and a bottom-up capacity building approach.) A complex institutional, scientific and operational framework arriving from this situation then required consolidation. While seemingly problematic at first, such differences were also viewed as opportunities for building upon agencies' comparative advantages (MTE and TE consultations) but were conditional on good management framework in place, which was where UNOPS came in (elaborated upon on below).

Cost Benefits –Option for Strategy

The TE considered the project strategy based on original project document. A key learning that sticks out and is significant to mention at TE, is the use of cost benefits analysis as strategy as it relates project ERL outputs. The CBA in fact could also strategically employ to GEF NRM related outputs and built in as overarching project implementation modality for both ERL and NRM.

For ERL, a key learning in relation to CBA is that when breeds have their specific ecosystem niche, all they need is a good husbandry and breeding system to outcompete other breeds within this specific niche. An objective insight into their productivity would not be biased by simpler views such as "bigger animals produce more." Bigger animals also need more feed for both maintenance and growth, and when they are not adapted to the climatic niche, their veterinary cost is higher and their reproduction and growth will be stunted if they are not well taken care of, which may include the need to provide cooled stables. Most trypanotolerant ERL were held by crop farmers little aware of the importance of breeding and selection in livestock and mostly selling the fastest growing males first because of the better price they fetch. Therefore selection of bulls using genotypic characterization can bring fast progress and make the N'dama and other trypanotolerant ERL competitive.

The focus of this project was rather on the rehabilitation of breeding centers, restocking of foundation nuclei, and qualified human resources along with appropriate management. From the perspective of NRM, cost benefit analysis is a way to make value judgments. Therefore the idea that it was a capacity building approach then imparting CBA to farmers around NRM was also valid. This should have been clearer in the document and in the implementation approach.

At end the cost benefit analysis for the AfDB remains uncertain because some of the available information was not updated. ILRI mentioned Cost Benefit Analysis (CBA) in the title of its reports but completed a qualitative assessment of the improvements in the livestock systems only. This important work should be completed before the project can verify its overall results. The analysis can also be extended to consider willingness to pay in terms of land use planning. Regardless, as a concept, the project differs from many previous breeding/selection activities and productivity improvement work in the sub-region, which had typically been done through a top-down approach, putting farmers in the position of being simple beneficiaries. On-farm conservation programs are not only more cost-efficient, but are also the only way to conserve more than just the genes (what is done *ex situ*).

Log frame

As the GEF/UNDP ProDoc logical framework was different from the AfDB Appraisal Report log frame, partners for PROGEBE overarching results agreed on an integrated log frame as a management tool post UNDP/GEF project inception meeting (Final review of final integrated log frame AfDB TE Report Annex I). In view of the overall development goal, partners proposed a different order of priority for the strategic action lines of the project (SIL). Although this did not lead to a change in the logical framework, the relevance is perceived in the actual outcomes that were managed by project end (see results section). The six strategic intervention lines (SIL) identified during inception meeting as part of the integrated logical framework are highlighted in the executive summary above.

The realization of a single integrated log frame during project inception was a significant accomplishment by the UNDP/GEF project management considering that the two major donors, GEF and AfDB, each had its

own approach and reporting arrangements. Adaptive management was absolutely critical to the ultimate success of the pilot, and contracting UNOPS as a critical objective actor for a complex regional and national context for project implementation became a key feature for implementation success. This is elaborated upon in sections on management arrangements and results.

Key lessons learned, include: (1) the lengthy process for the inclusion of the baseline in the final agreement on national baselines became an ongoing implementation problem involving the log frame as a management tool. In the absence of these baseline values, the log frame was not a good monitoring tool for over half the life of the project (discussed in more depth below); (2) the revised log frame had too many indicators to which RCU added annual management tasks; having too many indicators hinders the establishment of a flexible, lightweight, and functional M&E system, making it hard to manage and to communicate to implementing partners. The AfDB insisted on the large number of process indicators. UNDP/GEF was happy with the limited set of indicators in the original ProDoc. PIR 2011 shows that the final set of GEF indicators was retained but more were added. In reference to the finally agreed outcomes and indicators, the latter were not so many, but some outcomes might have been skipped or defined smarter considering measurability at project start and end (see TE comments on log frame and end results AfDB final evaluation report attached-Annex I). TE note however that not all were impact indicators. This is a lesson learned on design and efficiency. 3). On a positive note, the work done harmonizing the log frame and dealing with management issues of two separate donor project has been significant and helped lead this project to a successful result.

- **Assumptions and Risks**

According to the original project document, the project's chance at success was based primarily on two critical assumptions, 1) that stable economic and political conditions within and between countries in the sub-region, particularly in rural regions, continue to support rural development and limit large migration events into vulnerable ecosystems and 2) that supra-regional competition in livestock markets remains stable, as does market access to countries outside the sub-region.

In Mali and Guinea, the project suffered delays due to political unrest, and the political situation in Mali is not yet stable, but project strategy sufficiently employed adaptive management and measures to complete the infrastructure works with only a small delay. Though the situation in the north of Mali remains critical, this is not yet felt in the ERL habitat and project actions.

Regarding the second assumption, three risks (project document risk framework) were defined:

1. Sub-regional institutional and policy framework for endemic ruminant livestock that will allow the adoption of tariff and non-tariff barriers that hinder endemic ruminant livestock exports;
2. Discontinuation of ongoing processes of decentralization of livestock and natural resources management and authority in the four target countries;
3. Sub-regional institutional and policy framework for endemic ruminant livestock supporting subsidies and incentives for non-endemic livestock production, livestock cross-breeding, and/or land clearance for agriculture.

The first two risks did not manifest; however, after project end, the Ebola virus might affect trade. As for the third, the TE concludes Scaling-out is feasible as demonstrated by observed political will gained and project-generated learning and capacity building at all levels. The local level organizational capacity, scope, and mandates of the host institutions at national and regional level are capacitated to take these

results forward. See also the discussion on sustainability of host institutions, including ITC and national level institutions in the sections following.

- **Countries Ownership Highly Satisfactory HS**

The project is in line with programs and policies aimed at increasing rural productivity, including that of endemic livestock, and attaining food security, generating foreign exchange through the export of livestock and its products and increasing employment in rural areas (desk review, meetings with national counterparts in three countries visited). In all countries visited, national-level stakeholders expressed and validated their country ownership of PROGEBE. The project clearly supports the countries' programs and policies aimed at increasing rural productivity, including that of endemic livestock and also seek to attain food security, to generate foreign exchange through the export of livestock and its products, and to increase employment in rural areas. In addition, development of the beneficiaries' capacity building through an appropriate pedagogical approach (on-site training in national languages, production of training materials in local languages, application of adult learning methods, etc.), applied training based on practice, and post-training monitoring and support has resulted in these improvements:

1. Ownership of the NRM conventions (POAS) seems firmly established as embedded in decentralized institutions; this includes the maintenance of livestock roads, improved rangelands, firewalls, and the management of fodder and forestry resources and the prevention of bush fires.
2. The establishment of management committees representative of the local beneficiaries ensures ownership and might ensure sustainable use of the built infrastructures.
3. The vaccination committees contributed to an increase in livestock survival rate and therefore a decrease in mortality rate; the auxiliaries were conducive in other prophylactic needs. Thus the foundation was laid for further investments in housing, feeding, and reproduction management through herding and selection.

- **Lessons from other relevant projects (i.e. same focal area) incorporated into project design**

Linking NRM and ERL improvement has not been attempted in previous UNDP/GEF projects (interview with GEF/RTA), so this project is innovative, stretching the boundaries to test improvements in endemic species production as a priority development resource linked to NRM. In terms of ERL productivity aspects, the project differs from many previous efforts to develop/improve productivity of endemic ruminant livestock with respect to the direct and active participation of livestock keepers in the project and the ownership by them of project activities and products (Interviews with RTA, PM, others). In addition, recent experiences from village-based improved livestock multiplication schemes have shown a significant desire among producers to form self-sufficient associations that address the needs of communities instead of continuing to rely on traditional dependence on governments for operational and infrastructural support. The formation of the Gambian Indigenous Livestock Multiplication Association (GILMA), which facilitates the access of its members to improved inputs and cooperative marketing strategies, is an example. Similar associations have been formed in Guinea for draft animals. In Senegal, for example, an N'Dama breeders' cooperative is in place, and animals from the member's herds have been transferred to the nucleus breeding unit. The project has supported the establishment of 130 CBOs, including cooperatives such as the N'Dama cooperative in Kolda on ERL and NRM.

- **Planned stakeholder participation**

Table 1 Realized Project Beneficiaries

Actual	Planned	Progress towards target (% realized) (A/B)	% of women	Category
M/F 6731/3072	15250/8000	44%	31%	Agro-breeders and other farming community members
365/48	-	-	12%	Auxiliaries and Relays
19	15	19/15	50%	Communities
365/48	84	271 %	18%	Technicians
7	4	175%	0%	Scientists

The project design and its implementation approach were participatory (See Annex E-List of PROGEBE partnership protocols signed). A primary outcome barrier noted in the original project document included the existing lack of adequate stakeholder interaction, coordination, and input into overall management and decision-making for endemic ruminant livestock (ProDoc). Multi-stakeholder collaboration at all levels was, however, viewed as a key strategy for implementation. The project's success thus depended on high level involvement of many different stakeholders throughout the sub-region (ProDoc).

For implementation support at the site level, public participation was effectively promoted through the formation of *local level steering committees (functioning in the three key pilot areas visited)* and included public representatives of farmers, herders, other resource users, production and marketing associations, and traditional and elected local leaders. These community representatives were joined by local personnel of resource management agencies, livestock and farmer outreach workers, and other technical personnel. The representatives of communities and other stakeholders in the pilot areas were invited to participate in the project's national steering committees (meetings notes), and sometimes they participated into the regional steering committee meetings held in the Gambia, Guinea, and Mali and in the exhibits and field visits.

The strategy for multi-stakeholder participation at the **national level** was the establishment of the four national steering committees, which included members of national executing agencies, Department of Livestock Services, national environment agencies, national academic institutions, and their national stakeholders, including Ministries of Finance (and/or Development & Planning), Ministries of Law, women's associations, livestock dealers associations, livestock breeders associations, national herder's associations, agricultural industry institutions and agencies (livestock marketing and production agencies and associations), national conservation and/or sustainable development NGOs, and FAO National Coordinators for Animal Genetic Resources. TE team met with many in this group (see evaluation mission reports) at **the sub-regional and international levels**. Many stakeholders were informed and invited to meetings but not active in stakeholder ship. Efforts at outreach to engage research institutions were successful in Mali and similar approach was adopted in the other countries. R&D program was implemented in collaboration with national research institutes except for the Gambia, where the program was implemented through ITC; such engagements as well as with management institutions and programs are commendable and noteworthy for lasting results but contingent on institutional strengthening efforts to sustain the work regionally.

- **Replication approach**

This pilot project intended to scientifically test an approach linking ERL to NRL and to contribute to regional and national sustainable economic development. The implementation strategy included a demonstration of how to scale the approach, first, within secondary sites and then externally to the sites. In each country, five project pilot sites were selected (three primary sites that were the focus of all project interventions at the local level and two secondary sites that would demonstrate the viability of the approach and were the focus of public awareness programs in preparation for replication of activities at the primary sites). The *project focus was community-based models of sustainable management of the endemic ruminant livestock and its natural habitat* first in the pilot primary sites and then to replicate them in secondary sites and beyond. In UNDP/GEF's vision, the lengthy duration of the project (10 years) was sufficient time to facilitate the development of models, including experimenting with (and building capacity of) the relevant institutions to be replicated, taking lessons learned into account (ProDoc).

The TE concurs (based on consultations with site coordinators and beneficiaries) that the project did succeed to replicate key ERL and in particular, the NRM achievements through its secondary sites by targeting site selection and tailoring capacity development, study tours between sites and training sessions. It was done through testing innovative approaches and through different entry points in each country context, including, as an example, establishing water points and developing local level participatory land use plans (POAS) and undertaking cross-site learning through various activities (study tours to other sites including other countries, e.g. Senegal farmers went to the Gambia to visit the new markets). Secondary sites were prepared to replicate activities derived from the most visible results obtained in primary sites and through aggressive knowledge management and capacity building tactics, i.e. site exchange visits, including study tours and innovation platforms. In general, this approach worked, but lessons on sustainability and secure finances to support the scale-up of these activities are noted by the TE (see sustainability section).

- **Linkages between project and other interventions within the sector**

As per the original ProDoc, the project management units at regional and national levels were coordinated with the portfolio of relevant GEF projects in the four countries of the sub-region, mainly through the RCU-UNDP nexus. UNDP is implementing several projects regionally that are in synch with the aims and goals of this project towards a goal of rural sustainable economic development, poverty alleviation, and food security. UNDP plays a significant role in terms of strategic follow-up programs and future linkages (see recommendation in this view). TE noted that UNDP national officers were engaged and now can capitalize more in terms of the synergies and scale-up potential (see section on UNDP national officer's role below). For instance, in Mali the team learned (not through the UNDP discussions) about the possibility of a national project on sustainable land management (discussion with Ministry of Rural Development while in the Gambia (Mr. Daniel Siméon Kelema, Secretary General, assisted by Dr Saïdou Tembely, Technical Advisor): the entry point was found to be with ongoing work on climate change and GEF 6 and the LCDF opportunity (discussion with the Gambia NEA focal point for GEF; see country TE reports).

A central feature relating to PROGEBE linkages and learning has been its excellent approach to knowledge management and a distinct strategy on generating institutional and other constructive learning linkages based on commonly held goals around ERL and NRM. Coordination, managing and sharing knowledge, and service delivery was generated by a KM focal point based at the central RCU unit. Together with a good monitoring strategy, this has been central for creating the dynamic learning loops locally, nationally, and regionally. PROGEBE was a regional, national, and local learning project with an excellent embedded capitalization, a "taking stock" process of its achievements, strengths, and weaknesses. This was achieved

through the development and implementation of a comprehensive capacity building, information, and communication plan at inception (also see ME section). The regional approach to institutional development, learning, and sensitization about the value of ERL livestock production and NRM included project branding, garnering visibility, and supportive local level innovation and learning platforms.

The raised profile and communication channeled awareness activities based on the work, resulting in an internal regional competition for national results between the national teams. TE obtained and reviewed supportive evidence through consultations in this regard. (A comprehensive list of actions is documented in PIRs and the capitalization report, including reports on project slogans and communications developed for branding the PROGEBE approach in four countries.) Its focus on innovation and learning platforms at all levels was noted as good practice. The PROGEBE learning content is purportedly being transferred to the new ITC-based WALIC website currently under construction with PROGEBE support and financial expertise. A discussion on project sustainability, ITC, and the WALIC concept is provided in the section on sustainability below.

- **Management/Execution/Implementation arrangements**

The arrangements follow: GEF and AfDB are the funding agencies; UNDP is the GEF Agency; UNOPS is the executing agency and responsible for the use of GEF funds, on behalf of and in collaboration with beneficiary governments, and for funds which are availed through UNDP and under UNDP's supervision; ITC is the executing agency for the AfDB funds available to it at the regional level, whereas Livestock Services in the beneficiary countries is the national executing agency for funds availed at the national level, and ILRI is but a sub-contractor under the GEF project. AfDB, ITC, and ILRI are also co-financiers of the GEF project. The two big donors (AfDB and GEF) selected different executing agencies but agreed on common implementation arrangements within the International Trypanotolerance Center (ITC). UNOPS however would be the implementer of the GEF component. At the national level, implementation was overseen by the national governmental agencies responsible for livestock in the four project countries: Department of Livestock Services (the Gambia), Direction Nationale de l'Elevage (Guinea), Direction Nationale de l'Elevage et de la Pêche (Mali), and Direction de l'Elevage (Senegal).

Regional Level

The United Nations Office for Project Services (UNOPS) executed on behalf of the UNDP/GEF and implemented the UNDP/GEF component for the realization of the project's UNDP/GEF outcomes and for facilitation of the operational procedures according to the UNDP and GEF procedures with the national governmental agencies responsible for livestock in the four project countries. In fact, GEF/UNDP, with the agreement of participating countries, delegated authority to UNOPS to manage the funds but retained its project assurance, strategy, and administrative support functions.

In line with the project agreement and the design for its supervision and coordination at the regional level, the Regional Coordination Unit was established at ITC premises in the Gambia for both components (AfDB and GEF). The RCU was secretariat for the regional steering committees (RSC). See further explanation of the role of RSCs below. The entire project staff list was reviewed by TE (Annex F—List of Staff Employed). The overall regional project coordinator was held responsible for the UNOPS-executed, GEF-funded component of the project (ToR Section II, Part III), while a deputy was made responsible for the ITC-executed, AfDB-funded component of the project. However, the regional project coordinator, in close consultation with the deputy, was given overall responsibility for ensuring coordinated planning and implementation between the GEF- and the AfDB-funded components of the project.

The project was an ambitious, long, complex, regional-, national-, and local-level undertaking. In view of the management arrangement, the scale of the undertaking across the domains of science, development, policy, behavior change, and staff relations was significant and noted so by TE. The duration of this project was unconventionally long for GEF, but this was the correct approach for influencing systemic transformative shifts in the regional and national development policy desired. To undertake a scientifically sound project and to link it to development policy windows and opportunities is a major undertaking, and management conditions would need to be considered for uncertainty and dynamic change over time. Managing complexity and relationships in particular can be 90 percent of the pathway toward results.. TE considered all these things.

In this project, flexibility and astute management to carefully maneuver the relationships contained within are apparent. The terms of reference for staff were reviewed and found to be adequate against the story of the implementation (interviews and focus groups with RCU staff). The following learning has thus been noted. The first fact is that there were two projects, each with its unique development goal and approach and staff at different levels. The second fact is that the original title given to coordinator for AfDB was problematic; in addition to being the deputy, he/she would also be coordinator of the AfDB component, which at first created confusion of roles (interview with PM). How this was handled would depend on the people involved and on good use of adaptive management. In this case, after the second GEF coordinator arrived at the project, the issue of roles was clarified, a joint log frame was instituted, and the relationship went smoothly. Both positions were clarified as complementary for the project objectives and not competitive. No problems occurred that presented a risk to implementation after that point. A second learning from this management arrangement has been the clear need in such circumstances for salary harmonization. It is clearly better having HR under one unique procedure as salary differentials for similar jobs is not fair and will cause underlying problems/resentment. Finally, the capacities and the skills of the project team were able to make a highly visible, successful initiative from a complex and multi-donor project with two different procedures.

Although the deputy coordinator left in October 2013, the departure was not viewed as premature as the project was supposed to close in Dec 2013 (interview with PM, reports). It is also normal that at the end of any project, non-civil servant staff begin to look for new jobs. The deputy, in fact, left two months before the initial project closure date. The nomination of an acting deputy coordinator was clearly an expression of adaptive management for results. The appointment was initially for six months. It was not deemed appropriate or cost-effective to open recruitment for an international position for only six to eight months considering the minimum load of work that remained (follow-up on the uncompleted infrastructures - PM interview). Also, TE learned that the key purpose of the nomination of the KM advisor (for two months) is to facilitate the final administrative aspects (payments/checks) for any payment from the AfDB. It is mandatory to have the signature of AfDB in addition to the signature of ITC. This shows excellence in cooperation between donors and management for results, and TE fully endorsed this project as an adaptive management good practice.

Clearly, adaptive management and good project leadership has been very important in this project. The lesson on adaptive management can be taken forward, also to be noted for future projects involving two different big donors, GEF might consider advocating the appointment of two full-time financial officers, one operational coordinator, and one full-time project coordinator for results. The financial officers would be responsible for each donor's financial reporting requirement.

National Level

The executing agencies were the Ministries in charge of livestock or its equivalent. These ministerial departments provided the logistical support to facilitate administrative procedures in the implementation of the project (ministries, technical directorates, research structures, etc.) and provided technical support, including allocation of requisite national staff to the project.

GEF funds in each country were employed to pay for the national project coordinators, site coordinators, site technicians, and site animators (noted as a great and important GEF sponsored innovation for linking (creating trust) between government service providers and communities around ERL and NRM services), while AfDB funds paid for experts (AP, NRM, and M&E) and for the head of administration and finance. The project employed a national team (NCU) composed of project coordinator, experts for animal production and NRM, and staff members for M&E and finance reporting to the RCU (see ToR ProDoc). Other national level staff was governmental employees, seconded or assigned on a full- or part-time basis to the project. At the site level, one site coordinator (project staff) at each site and three to four animators were paid by GEF; other site-level staff constituted government employees receiving top-ups (interviews with PM). Based on the source of funding for their position (GEF or AfDB), the project staff and consultants each signed performance contracts with UNOPS or ITC, as appropriate.

The NCUs were located at the following sites: Bougouni (Mali), Kolda (Senegal), Banjul-Abuko (the Gambia), and Conakry (Guinea). Site coordination units were also established with the facilities provided as in-kind support by the governments of each country. These units were under the supervisory authority of the NCUs, responsible for facilitating and ensuring coordination between and among them and other national-level structures and providing logistical support and access to requisite resources, including personnel.

The site coordination units were located in Niamina East, Kiang West, and Nianija (the Gambia); Gaoual, Dinguiraye, and Beyla (Guinea); Madina Diassa, Manankoro, and Sagabari (Mali); and (Bandafassi, Wassadou, and Tenguori (Senegal). In general, these arrangements have worked well, according to the consultation with all involved in implementation. (Also see NC and RCU TE workshop reports). The key lesson learned is that the different salary scales of GEF and AfDB caused serious staff-related issues. The actual problem was solved only for the regional coordinator. The latter issues should have been worked out at design and formulation. This now can be a lesson learned for future regional initiatives involving UNDP and AfDB.

Project Oversight

For decision making and planning purposes, three types of steering committees were set up: the Regional Steering Committee (RSC); a National Steering Committee (NSC); and a Local Steering Committee (LSC). These mechanisms were critical for guiding implementation of this project. They provided an excellent platform for multi-stakeholder engagement, including donors, policy makers (regional and national), and scientific institutions, local persons (farmers, city government, local women, etc.) to work and test an approach that involved science, policy, and community-level engagement and responses. One gap noted was private stakeholder involvement, in particular for dealing with the issue of creating markets for products resulting for both ERL and NRM initiatives.

The Regional Steering Committee (RSC) initially consisted of UNDP (a UNDP lead representative and a representative of the UNDP representative office in the country hosting the RSC meeting), UNDP/GEF, UNOPS, ILRI, ITC, the ministries in charge of livestock and finance of each participant country, the GEF operational focal point of the government of the country hosting the RSC meeting, the FAO, and CIRDES (see ProDoc and MTE for RC functions).

The National Steering Committee's NSC mission (according to the manual of administrative and financial procedures) was to provide strategic guidelines at country level, including identifying opportunities to create links between sites within the country. NSCs functioned in four countries and met each year as planned. In addition, at the local level each project's primary site had a local steering committee that regularly included a multi-stakeholder representation including mayors, farmers, and local producers and resource users (consultations during TE, see mission reports).

The SCs were the essential institutional arrangement for influencing national and regional stakeholders in terms of the project's scale-up approach. These arrangements worked well (ProDoc, MTE, and TE interviews). The team instituted and garnered important regional policy learning and provided technical guidance and oversight and transparent decision making. This unit functioned as planned and met every year since the first meeting on February 13, 2008. During the second meeting, the decision was made to have RSC chaired each year by the representative of the ministry for livestock production of the country. This move secured national ownership of the expected results. It helped to strengthen national capacity and influence policy makers for project implementation (also refer to section below on management, execution/implementation, and interviews during TE-see mission reports).

RSC and NSCs orchestrated policy change by working through and with national institutions very well. The key features were the professional approach to holding these meetings: a strategic selection of where meetings were held, documents provided on time, presentations clear, and recommendations that took into account all decision maker and stakeholder inputs. The level of engagement and discussion was reported well (MTE and TE interviews with steering committee members).

In terms of the institutional learning and the PROGEBA capacity development approach, the project is supporting the key institutions in charge of ERL breeding programs (ITC, Boke, Famolia, Madina, Diassa, and CRZ). In each country, a breeding program committee has been put in place. At the ministries level in addition to technical short term training, the project has funded master degree program in animal genetics in Morocco and the Netherlands universities. In addition, several key lessons emerged, including on technical and representation and capacity development matters.

From a technical implementation perspective, as the RSC and its functions were insufficient to analyze all the various technical inputs raised in depth, particularly with regard to operational, scientific, and technological aspects, it assured that project had more than one committee playing the role of an overall technical committee and perused several key mechanisms to inform its technical/scientific decisions. For example in addition to ILRI, the main project technical partner, the regional steering committee (RSC) provided guidance to the project through its technical/scientific members' representatives such as ILRI, CORAF/WE CARD, Dr Coulibaly of Mali, CIRDES, UDP-GEF focal point.

At the national level, where activities are designed and approved, the project has established a committee of the national technical partners which meet quarterly and with LRI participation in some of the meetings (Mali). Also, in each country a technical committee was established for the genetic improvement program and preservation of N'Dama. Various ad hoc thematic meetings were held to discuss and decide on issues such as genetic improvement, transhumance and NRM. These have been enough tools to guide technically the project.

3.2. Project Implementation

- **Adaptive management (changes to the project design and project outputs during implementation)**

Examples of adaptive management are apparent in every aspect of this project's implementation approach, starting with how the project dealt with the design, including having two distinct projects (outlined in detail above), two coordinators and separate execution entities UNOPS and ITC, the implementation of the agreement of a new role for ILRI, a founding project partner, the challenge of an integrated log frame, and the institution of a dynamic new results based monitoring system. The management response to these many challenging implementation issues and use of adaptive management by the UNOPS-led RCU is commendable.

A notable feature of the adaptive management was the objective professionalism of the regional coordination unit RCU in all areas of implementation, especially for its leadership on project-related ME and staff relations. The RCU team focused on delivering quality support services to all partners and, in particular, to the national coordination units with a focus on monitoring for results. Despite implementation and design problems, the RCU team overcame implementation bottlenecks, finding innovative ways to keep staff motivated and on track despite emerging issues (most are well documented in the MTE, including issues with salaried staff scales, log frame, etc.). A critical example of good project management was the dealing with staff salary discrepancies, whereby non-monetary incentives were provided to all staff, including training and certification. Such non-monetary incentives were significant in the implementation of this project. All project staff members (34) have been certified at the PRINCE 2 Foundation level, 7 of them at the PRINCE 2 Practitioner level. Two staff members are taking CIPS (Chartered Institute for Purchasing and Supply), one of whom has completed the advanced diploma. One is taking ACCA (Association of Chartered Certified Accountants); and two participated in the PM foundation course. The Regional Coordinator took the UNCT leadership course.

- **Partnership arrangements (with relevant stakeholders involved in the country/region)**

By developing partnerships and consulting with an extensive group of partner institutions and agencies located in the sub-region during the PDF-B phase (see Annex 2 of the UNDP ProDoc), the project strategy was to optimize its ability to identify and utilize cost-effective technical and policy advocacy level inputs during project implementation. (Note: For additional detail, see Annex 2D of the approved Full Size Brief, Public and Institutional Participation Strategy). Thus the project had stakeholders at local, national, and regional levels.

Aside from the main implementing partners (ITC for AfDB, four countries' counterpart agencies, and UNOPS for UNDP/GEF) agency orientation, matters of which are already discussed in the project formulation section above, the project implementation strategy was to use staff and experts from within the sub-region to the maximum degree possible (interviews with project support team at RCU during TE). The primary mechanism for multi-stakeholder participation in work planning and decision making was the steering committees (all levels). The key partners at regional level were ILRI and UNDP, who together initiated the project, and ITC. ILRI and ITC, as well as CIRDES, were included in the project design because of their expertise in the field of (endemic) livestock research.

At site level, the project stakeholders were formally involved through the local level steering committees under chairman ship of the mayor. The LSCs included user representatives such as farmers, herders,

representatives of marketing associations, and traditional and elected local leaders. These community representatives were joined by local personnel of resource management agencies, livestock and farmer outreach workers, and other technical personnel. Representatives of the LSCs were invited to participate in the project's national steering committees (meetings notes). The LSCs were reported functioning in the number of sites reported on and visited during the TE, and they clearly contributed to ownership.

At national level, the NSC assured ownership and facilitated all types of procedures and staffing and was important in engaging funds for the consolidation. Partnership protocols had been signed for training services and monitoring activities; these partnership included main stakeholders such as the ministries in charge of livestock and of environment (Annex). However, in general, especially at site level, the involvement of the partners from government services was reported as excellent. Protocols for specific national partnerships were also signed with key research institutions in each country in relation to selection and dissemination of ERL activities. These institutions include the Keneba Centre for Research in the Gambia (one of the ITC centers), the Madina Diassa Community Centre in Mali, the two livestock breeding support centers in Boke and Famoila in Guinea, and the Kolda Centre for Zoo-technical Research (CRZ) in Senegal (one of the ISRA centers). Four partnership protocols were signed with community radio stations in Mali, three in Senegal, and one in the Gambia. Partnerships were expanded to include R&D projects (additional five protocols), for which ad hoc selection committees were set up.

At the regional level, key technical partnerships, including those with institutions active in the field of endemic livestock research, were sought, i.e. ILRI for the implementation of the scientific component of the project and CIRDES for conservation of elite breeding animals. At the national level, in general, 35 partnership protocols have been signed in the context of PROGEBE. A comprehensive list is provided in (Annex), compiled by the project team PROGEBE in October 2014, outlining the various partnerships and their utility toward results. These cover the following activities: training agro-pastoralists, environmental monitoring, development of land occupation and use mapping (POAS), development and sustainable management of natural resources activities, and strengthening the institutional capacity of CBOs.

The ProDoc stipulated the establishment of a RSC in order to increase transparency and political support. Since the first meeting on February 13, 2008, the RSC has met annually, each time in another participating country. From the second meeting on, the ministry in charge of animal production of the hosting country chaired the meetings, which helped to strengthen national ownership and support. The Regional Coordinator was systematically supervised by the portfolio manager of UNOPS in Dakar. UNOPS has an excellent management monitoring system focusing on performance (disbursement and output execution rate).

A MoU with ITC enhanced project implementation through positive collaboration, and provided excellent facilities for the RCU office and staff, and the Gambian nucleus breeding component. ITC benefited from the training of staff and the availability of a capacity building expert. ITC would have to further the regional character after PROGEBE ended, but during the project lifetime ITC has not built sufficient capacity to be able to do so.

The MoU with ILRI was developed and generally focused on the project's scientific component and on support through training/workshops. The ILRI partnership and subcontract was intended to be the 'heart' of the implementation, the substantive work, and since the replacement of the first UNOPS coordinator, UNOPS signed an amendment to the MoU stating that payments to ILRI would be based on deliverables. The dynamics and smooth execution of the RCU - ILRI relationship was instrumental to good monitoring

for results and to the execution of successful outcome of this project in particular the NRM and the ERL aspects. The annual ToR co-signed by UNOPS and ILRI included clear deadlines for the deliverables, but TE found that ILRI hardly ever respected these deadlines. ILRI focused on clear cut deliverables instead of dynamic monitoring and sustainability.

The lesson is that although ILRI has delivered, the need for scientific monitoring and long term learning and sustainability –the approach might consider the longer term monitoring systems and learning partnerships for NRM that would build on the needs of the regional and national experts. ILRI was constructively criticised about not supporting national counterparts with the appropriate resources (bi-lingual experts). In addition other constructive critics include, the studies on transhumant provided useful recommendations, but the related scientific papers analyze change without adding value to the project, and the meat market studies omit to consider live weight and meat quality, price factors that are considered by farmers, traders, and butchers; both of the latter are willing to pay higher prices for the N'dama because they get more meat from a carcass, and the meat sells better because of consumer appreciation. ILRI studies did not assess these aspects which the CA17/CIRAD study found to be important aspects for N'Dama branding. In summary, some ILRI studies remained academic exercises, but most ILRI's activities and studies provided added value for the project implementation. ILRI's contribution could have led to a major breakthrough if they had done molecular genetic characterization.

Aside from the three key partners, PROGEBA firmly collaborated with FAO and AU-IBAR (African Union-Bureau for Animal Resources) in establishing successfully the Sub-Regional Focal Point (network) for the Sustainable Management of Animal Genetic Resources in West Africa (SRFP-ANGR- WA). As ITC was under-capacitated, the secretariat of this SRFP--AnGR-WA network is to be taken over from PROGEBA by CORAF (interview FAO). The protocols were also signed with media services (broadcasts on project objectives, strategy, and activities covering events of the project, raising awareness on the fight against bush fires, etc.).

Capacity Building Approach

Development of the beneficiaries' capacity building was conducted through an appropriate partnership and pedagogical approach (on-site training in national languages, production of training materials in local languages, application of adult learning methods, etc.) applied practical training and post-training monitoring and support. This resulted in ownership of the NRM conventions (POAS) which seem firmly established based on observation and consultation with local stakeholders and beneficiaries as it is embedded in decentralized institutions, including the maintenance of livestock roads, improved rangelands, firewalls, the management of fodder and forestry resources, and the prevention of bush fires.

The establishment of management committees representative of the local beneficiaries ensures ownership and might ensure sustainable use of the build infrastructures. The vaccination committees contributed to an increase in livestock survival rate and therefore a decrease in mortality rate; the auxiliaries were conducive in other prophylactic needs. A key insight noted about the project implementation has been how Cost Benefit Analysis CB might have been framed more as an implementation modality and target of capacity building for NRM as opposed to an input only for measuring value of ERL. This is noted throughout this report as a key finding of the evaluation and a good lesson learned for future NRM aspects of implementation.

Key partnerships (implementing and technical partnerships)

United Nations Development Program UNDP

UNDP national offices role in UNDP Gambia and UNDP/Mali again the following criteria: relevance effectiveness, efficiency, sustainability, and impact. With regards to relevance, UNDP has been involved on national steering committees and has been a partner to national coordinators in all four countries visited. Its role has been important for synergy and political traction, especially for development communication around the overall strategy and its significance for regional and national development and the importance of linking ERL and NRM in national development planning. It has also been important for signaling opportunities for out scaling issues, and its involvement across the four countries in this regard was and remains particularly important. PROGEBE RCU teams undertook several activities to strengthen its relationship with UNDP and UNDP-Mali, specifically. A meeting with UNDP was consistently included in the mission plans of the project team in all PROGEBE countries. Also, for any monitoring, audit, or evaluation missions, publications, reports, and any relevant data are consistently shared with all key stakeholders, including UNDP/GEF and UNOPS. UNDP-Mali participated in the RSC, was consistently informed about important project activities and is invited to all project regional meetings. .

TE found excellent communication ongoing between UNOPS and UNDP national offices, in particular with the UNDP national office in Mali as the lead national office (interview and steering committee and training meeting reports-). The majority of interviewees stated that the technical and strategic support provided by UNDP local offices was good, but now during end of project activities, it can be more proactive than first stages of the implementation to help identify national follow-up activities that can scale up the PROGEBE approach and build national capacity for cross-sectoral work involving ERL and NRM. Services of the UNDP national offices were realized during the implementation of this project. The UNDP-Mali lead office began to participate actively in PROGEBE meetings (RSC and NSC) and was kept informed about all important project activities (interview with the UNDP office in Bamako).

UNDP/GEF

The regional technical support provided was highly satisfactory. The role of UNDP/GEF has been particularly important in the overall design and monitoring of the regional project, regional of which UNDP/GEF has a much stronger role than in national. This point was elaborated on earlier in the report. The support has been firmly documented in all the project reports and GEF PIRs in particular. TE also consulted with the GEF/RTA about the project design and implementation and put forth that the UNDP/GEF RTA has been the key for historic institutional history linking stakeholders and guiding developments throughout this project.

AfDB

AfDB was actively involved in project implementation and very focused on the ERL NRM project as a strategy for regional rural development, food security, and poverty alleviation. The TE visited national AfDB offices in Mali, Senegal, and spoke with the task manager based in Addis Ababa. They and were informed the project has particular relevance for AfDB and that national follow up would be supported by national AfDB if a concept were proposed. In addition, AfDB is now an implementer of GEF, and this will have consequences for implementation in future joint activities. The TE questioned where the task manager has participated in steering committee meetings and was informed that indeed and the role was shared with the national AfDB officers and that communications were open and information was continually shared. The project was viewed as priority for regional rural development.

UNOPS

UNOPS has expertise in project management and its role in this project was custodian and implementer of the UNDP /GEF project. Its supervisory work has been excellent. It did a very professional job, in particular on project level monitoring and evaluation, delivery and management for results and even with the many constraints and barriers in implementation that arose and needed to be overcome (discussed above).

ITC

The AfDB selected ITC as its executing agency but did not hold ITC 100% responsible for delivering on the project. UNOPS was, in fact, held accountable by UNDP and Afdb for the execution of the GEF funds as partners, under the execution of the UNDP/GEF project. A problem noted was the unforeseen decapitation at ITC during implementation as it is currently left unable to integrate the breeding programme network set up by PROGEBE, which is an excellent result of project work. This is noting that ITC is already part of the network Sub-Regional Focal Point on Animal Genetic Resources in West Africa (S-RFP-AnGR-WA). The issue is about the Secretariat provided by PROGEBE. There was an open and transparent process that led the participants of N'djamena September 2014 meeting to select CORAF/WECARD as the new Secretary to the Focal Point. PROGEBE has done its best to ensure that ITC/WALIC will take over the Secretariat from the project (sponsoring its participation at all meetings), but unfortunately ITC did not meet the set criteria. It is also worthwhile to note that CORAF/WECARD is currently chairing the ITC Board. ITC current weaknesses in project sustainability are highlighted to be solely due to its current situation.

Small Grants Program SGP/GEF

The Small Grants Program was a successful partnership and worth highlighting for future national intervention in particular. At pilot sites in Guinea, Senegal, Gambia and Mali, the synergistic relationships with small grants became apparent for NRM technology transfer and for seed funding to start local initiatives spun off from the community facilitation work. The bee keeping business development is an excellent example.

CIRDES

According to the AfDB-PAR, CIRDES was intended to be the scientific partner for training in molecular genetics and for cryoconservation of sperm, ova, and embryos, i.e. ex-situ-conservation of trypanotolerant ERL. After the RSC of March 2012 turned down CIRDES's strongly downscaled financial offer (from about 0.5 to 0.1 million USD), CIRDES did not participate further (e-mail consultations during TE).

ILRI

The MoU with ILRI focused on the project's scientific component and on support through training/workshops. ILRI was attributed more than 3 million USD for their support; at first this MoU did not include clear deadlines for the deliverables. Since the replacement of the UNOPS coordinator, UNOPS signed an amendment to the MoU stating that payments would be based on deliverables. The annual ToRs co-signed by UNOPS and ILRI included clear deadlines for the deliverables, but ILRI hardly ever respected these deadlines (interview with PM). ILRI focused on deliverables but in retrospect the relationship might have manifest better results through a focus on creating dynamic monitoring systems and sustainability. A focus on creating learning systems would best build on the needs of the regional and national experts and community learning needs. The base-line studies provided valuable information for the site; however, the outcome indicators relating to many of the ERL indicators (Annex I. AfDB report) and the methods used for their calculation were different at project start and end; therefore the progress for these can't be

objectively stated. In summary, while some ILRI studies remained academic exercises, most provided added value for the project implementation.

- **Feedback from M&E activities used for adaptive management**

Implementing learning from regular monitoring and evaluation is essential to adaptive management. The regular I of activities and processes is essential for the learning to feed back into the engagements for garnering contributions to jointly held project goals. In general, the ME system was set up as a project learning system, and there were benchmarks for planning that enabled feedback (interviews with PROGEBE ME team). The TE has only one constructive critic in this regard, based on MTE report; however, an ad hoc scientific committee made up of external scientists and researchers from outside PROGEBE, coordinators, and technical experts of RCU and NCUs was recommended; which did not happen (reports and interviews). Such a mechanism would have allowed PROGEBE to organize a discussion on the scientific and technical aspects related to the conservation of animal genetic resources in West Africa, among others on a yearly and regional basis.

- **Project Finance**

TE considered key financial aspects including the cost effective's of the project, including the extent of co-financing planned and realized, project cost, and funding data, including annual expenditures. TE considered also issues regarding work planning and scheduling for good timing of inputs as it pertains to cost-effectiveness for results. In fact, the overall cumulative delivery by June 2014 was 93%. It was 71% 12 in advance of that date and therefore the current level of delivery is an excellent achievement, given the point reached by the project. Based on the analysis of delivery throughout implementation there has always been a strong and balanced execution of funds. A key risk identified early (in 2007), was that project funds may not be sufficient for such a complex, regionally scoped project, and that there could be a funds shortfall at the end. The balanced approach to planning and implementing has pre-empted this risk. The project is also highly likely to consume all of the remaining funds by June 2015 for consolidating results (based on discussion with project national and regional coordinators) during TE. In general, the average implementation rate of the outputs was 152%, and the median 100%, which is a maximum. Regarding the commitment rates, the following apply:

- The country's cash contribution for this project is 83%, which is highly satisfactory. The in-kind contribution is 73%, which is a significant contribution.
- Present disbursement rate of GEF funding is 92% but will be close to 100% at project end.
- Regarding the AfDB, three of the four countries have requested and obtained extensions in order to finalize the on-going works (Wells and drinking troughs in Guinea; drinking troughs in Senegal; complementary works on livestock markets and mini-dairies in Mali). Disbursement rate of AfDB funds will probably reach 93%.

Thus, by project end the ratio will have decreased, but the ratio will remain above 1, and the rating is highly satisfactory.

Figure 2 GEF Financing

DATA AS AT 31.08.2014

Financing*(Type/Source)	(mill \$US)		Government (mill \$US)		Other Sources* AfDB (mill \$US)		Other Sources* ITC (mill \$US)		Other Sources* FAO (mill \$US)		Other Sources* CIRDES (mill \$US)		Other Sources* ILRI (mill \$US)		Total Financing (mill \$US)	
	Propo- sed	Actu- al	Propo- sed	Actu- al	Propo- sed	Actu- al	Propo- sed	Actu- al	Propo- sed	Actu- al	Propo- sed	Actu- al	Propo- sed	Actu- al	Propo- sed	Actu- al
Grant (Gambia, Guinea, ITC)	10.00	9.20	1.85	1.13	15.37	14.56									27.22	24.89
Loans (Mali, Senegal)			2.54	2.53	15.03	11.55									17.57	14.07
Equity																
In-kind (Gambia, Guinea, Mali, Senegal, ITC)			4.39	3.65			0.32	0.15	0.21	0	1.00	-	1.07	1.07	6.99	4.87
Non-grant instruments*** (AfDB gov. counterpart)			4.23	4.23											4.23	4.23
Other types																-
TOTAL	10.00	9.20	13.00	11.54	30.41	26.11	0.32	0.15	0.21	-	1.00	-	1.07	1.07	56.01	48.06
		92%		89%		86%										86%

Results from recent financial audits, as available, were positive, and the project was given a good score. In addition, in terms of financial sustainability at the end of the reporting period in October 2014, the global physical execution is at 95%, RCU: 95%, the Gambia: 95%, Guinea: 92%, Mali: 85%, Senegal: 91% (PIR 2014). Also see sustainability section for financial sustainability.

- **Monitoring and evaluation ME: design at entry and implementation Satisfactory S**

TE reviewed monitoring and evaluation in relation to three considerations: 1. how ME worked as a tool for a complex project implementation and execution arrangement and management strategies, 2. how ME instituted a monitoring system for the breeding program project's flagship work to create a quality brand of livestock for marketing purposes, and 3. how the ME system instituted at project level provided scientific oversight and rigor in implementation of all results, including ERL and NRM (discussed already above in adaptive management feedback section). In general, TE agrees that for project management, the ME served the complex project implementation very well. However, for the other two questions, there has been learning for the future, elaborated above and below.

The project monitoring system was excellent. It comprised all appropriate tools and respected all UNDP/GEF and partners guidelines, protocols established in 2008/2009. The key M&E tools were developed in collaboration with the national coordination units and employed in a harmonized manner across the four countries. They included dynamic learning tools and were subject to adjustments and changes during the project lifetime. The project monitoring system involved the following components (TE discussion with ME focal point): a practical guide developed in late 2008 and approved in January 2009 during the inception workshop; a consolidated and integrated project logical framework developed in collaboration with NCUs and ILRI and approved by the main stakeholders, including the donors, following the mid-term evaluation; various templates and formats: progress reports, AWPB, missions, ToR, and reports, etc.; a technical note on the planning process; a methodology to calculate the project physical execution rate; a template to monitor and evaluate the technical partners; a computerized system for monitoring, evaluation, and accounting designed, installed, and used at all project coordination units. The M&E module has been designed based on the integrated log frame.

In terms of planning, a technical note was developed describing the inclusive and participatory planning process of the project (evaluation of the AWPBs, operational planning workshops, NSC, RSC meetings) at national and regional levels. A comprehensive and participatory planning process was conducted annually from September to December. The national and regional AWPBs are approved by their respective steering committees. National and regional steering committees meet annually during the first quarter of the year.

The project mid-term review was conducted in 2011 in two phases with a comprehensive MTR followed by a complementary study on specific issues. The latter focused on a review of key partnerships and a reflection on the replication strategy of primary site achievements to the secondary sites.

As mentioned earlier, the project's baseline was realized late during implementation (2011), which had ramifications on results monitoring. It had been subcontracted to ILRI as part of the original implementation agreement. The delays also caused reported contention between the implementing agents and project management (TE interviews with stakeholders, also see mission reports). The baseline was finally established between 2010 and 2011, and values were included in the project log frame. A lesson learned is not to go into heavy and very detailed baseline surveys as not all the data collected will be needed for the log frame. The period should not exceed three to six months.

Insights continue to emerge throughout the TE relating to the need for clearer articulation of the scientific tasks between ILRI and project management and appropriate plan (national partners should be engaged in setting and monitoring baselines), in particular for results monitoring and instituting capacity with national level partners for continuing results. In general, however, TE agrees the overall approach and implementation has been highly commendable as officers engaged monitored the performance effectively through instituting innovative end line surveys to finally inform the results indicators.

- **AfDB/UNDP and Implementing Partner implementation/execution, coordination, and operational issues Satisfactory HS**

The project implementation and execution arrangements were described above (executive summary). The role of UNOPS in this project as custodian and implementer of the GEF funds was excellent. It did a very professional job, in particular delivery and management for results within the many constraints and to deals with barriers for implementation that needed to be overcome. The complex arrangements were the single biggest risk and major barrier early on. UNOPS dealt with this and led this project to a useful completion.

Countries were responsible for delivering on the AfDB and GEF components of the project with emphasis on the UNDP/GEF development objective (e.g. to ensure sustainable populations of targeted ERL breeds in four West African countries in order to improve rural economies and to ensure the conservation of these breeds and their globally unique genetic traits) and the AfDB sectoral objective (i.e. to contribute to food security improvement and poverty reduction). The splits in components complicated implementation and required affirmative and collaborative/adaptive management actions on part of the UNOPS coordinator by standardizing implementation protocol and ensuring project expenditure was transparent along the project strategic lines with standards. The work of the RCU also provided leadership in annual planning exercises and served to motivate regional teamwork, including with the national country coordinators right down to the level of the site coordinators.

The learning was reported to have begun early for all implementing partners (ILRI, UNDP/GEF, UNOPS, ITC, and AfDB) with a clarification of the word "execution." In the AfDB part of the project, "execution" has a different meaning (MTE and TE interviews). The AfDB selected ITC as its executing agency but did not hold ITC 100% responsible for delivering on the project. UNOPS was, in fact, held accountable by UNDP for the execution the GEF component, under the execution of the UNDP/GEF project.

According to the reports (PIR, stock taking, etc.) at end of project, the overall cumulative delivery by June 2014 was 93%, and so overall rating is HS. The M&E of the project was up-to-date (see above). In terms of work planning, quarterly and annual reports were prepared at national and regional level and shared with

key stakeholders (steering committees members, donors, technical partners, etc.), and National and Regional Steering Committees met annually during the first quarter of the year. Project implementation at local and national level was regularly monitored and supported by NCU and the RCU. Each NCU has received, at least every quarter, a member of the RCU team. The missions to the countries contributed to success the implementation status of work plans, evaluate the implementation of recommendations made by the previous missions, and liaising with key partners, etc. ToRs and reports are prepared for all missions and their recommendations monitored on regular basis. UNDP/GEF has participated in all regional steering committees. The project mid-term review was conducted in 2011 in two phases: a comprehensive MTR followed by a complementary study on specific issues.

The 93% is an excellent achievement, given the point reached by the project in its lifetime. However, team noted that one of the key risks identified in 2007, when the project document was finalized, was that the project budget reserved about four years before project start might not be enough for such a large scale regional project, and that there could be a funds shortfall at the end. RCU states that their approach to planning and implementing has pre-empted this risk.

TE viewed the community level animators as being an instrumental input for local level NRM capacity strengthening and for their role in ERL NRM low technology sharing and uptake and in general, for their role supporting participatory environmental governance with communities and service providers. In continuing to out scale this initiative at National levels, some consideration as to what will be the mechanism that will play this role is critical.

The project is slated to continue until end of 2015 for Mali and Guinea which may help secure sustainability but there need to be some consideration as to the continuation of the softer but important GEF inputs i.e. community organisation that goes along with the infrastructure and how that can be continued for all projects until end of 2015 to secure the sustainability with infrastructure management plans.

3.3. Project Results

- **Overall results (attainment of objectives) Satisfactory S**

During the implementation period, the project's purpose remained fully aligned with the beneficiary needs and the country's development strategies because locally the project contributed to poverty alleviation, to improved income, to increased economic activity, and to increased availability of animal proteins. UNDP/GEF's development objective remains very relevant. The rating of the TE, however, does depart from the RTA rating of HS, and this is noted. If TE could give a rating of between S and HS then this would be the case. It is difficult to give a HS as the project is not necessarily completed at the time of TE and consideration for sustainability must be addressed. In particular this is a difficult rating for TE as evaluator also feels strong that this project and its work need to be promoted at the highest level for its contribution to sustainable regional development and poverty alleviation.

The approach tested and documented should thus be widely promoted in future regional and national development projects and in particular, to inform any new project dealing with resilience and /or sustainable / development in the title or content. There are critical activities to be completed (by June 2015) between now and actual close of this project to ensure sustainability and to ensure that this project result are evidence based in the policy and scientific literature. Key lessons emerged. For example, a critical element of success (key take always from TE meetings with communities) which is when community members are partners in the conceptualization and the construction of infrastructure and the NRM –ERL

planning approach, the ownership and will to manage it is more obvious. In the pilot sites, the GEF sponsored activities have contributed through investments in human resources and infrastructure developed a participatory approach including the devolution of power and responsibility to the natural resources and livestock users. This approach can be scaled to all other areas where the natural habitat of ruminant livestock is threatened. Good consideration must be given to the contribution of the users in development of the commercial infrastructures as the risk of under-appreciation is valid by both individuals and communities. Out scaling the project at the national level will take significant investment in human resources (see Annexes –report on country meetings) but it is feasible and should be the next step. The creation of the (national) institutions and systems for ERL –NRM the national level is a priority. National strategies were developed in collaboration with all national institutions and ministries approved and handed over to the government for funding and implementation

Outcome reporting (see more details in the AfDB report in Annex – Outcome and Output reporting). In general, this project has successfully delivered its stated outcomes as per the original project document and agreed log frame. This project is ready to be taken forward with some attention given to small refinements in approach (based on lesson learned in take stock exercise and in this report) and with regards to more systemic institutional capacity. TE closely scrutinized the methods to assess outcome indicators related to livestock in particular (one of the evaluators was a livestock expert with extensive experience in region) to say with confidence /evidence that approach to ERL and the breeding programme in particular are ready for out scaling and found that in cases, some indicators are different between the baseline and the recent value. This does not affect the overall TE conviction that this pilot is successful but is to document that there are some small refinements that can be taken into consideration for scaling activities. The baselines relating to livestock were estimated in 2010 by a recall survey over the last 12 months (2009/10). As for milk, the average production per day was estimated by the farmers, which can be very unreliable. The number of animals was extrapolated from a sample of 2.6% of the households. The recent values come either from the project's zoo-sanitary longitudinal surveys or are drawn from national statistics. For the concerned outcomes, the realized changes in quantities can't be used to evaluate progress. For these concerned indicators, the TE will refer to statements from farmers collected during their field trip to appreciate the changes. (The outputs and the evaluation statements are found in Annex I - AFDB report). The indicators for NRM, Policy/Enabling Environment and Knowledge Management are discussed below (see strategic line analysis)

Output reporting. See output report in the AfDB report attached as annex H. The original baseline outputs were input in 2009. Due to the long delay between project conception and start, the project budget availability became too low to implement all of the originally planned activities and so new approaches for reaching outcomes were developed. This is normal for project and adaptive management once again became an enabler for results. The project team had to make choices, some activities downscaled, rescheduled and or omitted, others inserted. Some outputs were given Non-Exactly-Defined targets (NED). Some of these choices are discussed. The actual baselines were taken from the original document and PROGEBE's annual report 2009. The integrated log frame, which became the primary management tool at MTE, departed from the initial log frames. The added indicator, effective mobilization of the government co-financing for the project, was not included, and is discussed as financing - efficiency: Implementation progress. Consequently, some indicators disappeared and new ones were formulated. Other added output indicators mentioned in the log frame under SIL-6 were management performance indicators, not included in the revised log frame vetted by the MTE and thus not reviewed as Verifiable Project Output Indicators

because they are not directly relevant for the outcomes. TE included some of the old ones to stress outputs which were relevant for the outcomes.

When relevant to the original outcomes or outputs, the news ones are inserted; otherwise, these outputs are referred to under project progress or mentioned in section below on unanticipated or additional outcomes. Regarding the number of producers trained, several baselines given were merged by the project, and two were omitted. Merged were the number of agro-breeders trained in reproduction, breeding, and herd management: 9,850; number of agro-pastoralists trained in reproduction and herd management: 1,500 and animal feeding: 5,200; those became one total target: 16,550. In earlier documents, the 5,200 was the target for training in small ruminant housing. The same 9,850 was used as a target for numbers trained on manure use and on fodder production, but no numbers existed for persons trained as relays. The analysis of the project outputs are provided in Annex–AfDB TE.)

Strategic Line Outcome Analysis (All reported activities are also verified in Annex)

The evaluation of the project's expected outcomes is augmented also by TE evaluators' comments on the log frame provide in Annex I-AfDB final report. A general summary analysis is provided below vis-à-vis the outputs. In general, the pilot project has reached 80% of the stated targets contributing to the expected high-level outcomes. Purportedly PIR 2014, the target was set in a generic manner in 2008/9, without due consideration for country- or site-specific conditions or for methodological guidance on how to set targets for HDDS. The methodological aspects have generated significant lessons for future work, in particular around obtaining ERL/NRM-linked outcomes. Notably, the target for increased food security has been achieved and surpassed by Guinea and Mali, while in Senegal small advances were noted vis-à-vis the baselines but not reaching the 20% target set. There was a marked decrease in the Gambia (near 30%). Yet, project management has reported an overall increase in the household food security, both observed from the data and perceived by the population in the project sites.

The most significant results of this project felt by the beneficiaries relate to watering points, simple wells, or boreholes with solar pumps, all equipped with drinking troughs and to the Plans for Use and Management of Land (POAS) (also see testimonials and TE country mission reports Annex). The POAS (local level development planning framework also described below) with livestock roads reduced conflict. Results also included stakeholders' and beneficiaries' classification of the effects of the accompanying measures, such as improvement of milk processing, sale of wild foods, and production of mineral lick blocks. In terms of ERL livestock, PROGEBE laid the foundation for improving production with an increase in productivity at the level of 20% of the beneficiaries of training and the zoo-sanitary survey; the effects of the adoption on income are sensitive to families with livestock can benefit (basically all families) (interviews with communities and PM). Through the accompanying measures, the more vulnerable get access to credit and livestock and increase the resilience of their livelihoods.

Regarding training and extension, PROGEBE implemented a system of veterinary auxiliaries and farmer trainers for livestock and environment (forestry), which increases efficiency. Offering livestock services as a technological package of the proven practices in the region and improved processing of milk and forestry products have been essential. Local-level learning has been improved by hands-on training, with farmers learning from each other through "rural relays" and through community radio. Thus the PROGEBE strategy is relevant to other areas where the habitat of ruminant livestock is threatened. Some (not all) of PROGEBE site's habitats are found to be indeed threatened, Mali, mostly due to remoteness and lack of environmental regulation and its enforcement.

In short, the project's work is **highly satisfactory** for the excellent effect on the primary beneficiaries (see table in stakeholder section) due to the longer-term investments in the capacity of producers, technicians, and scientists in empowering community user groups to govern their shared resources after appropriate multi-stakeholder planning and regulatory practices at community level for the POAS as an NRM framework. The initiatives of the project to link institutions with common interest contributed to the establishment of the sub-regional network for ERL, the **Sub-Regional Focal Point on Animal Genetic Resources in West Africa (S-RFP-AnGR-WA)**. This is a critical input for the regional sustainability of this project. The issue about the Secretariat of the network provided by PROGEBE at ITC came up. TE learned that there was an open and transparent process that led the participants of N'djamena September 2014 meeting to select CORAF/WECARD as the new Secretary to the Focal Point. PROGEBE has done its best to ensure that ITC/WALIC will take over the Secretariat from the project (sponsoring its participation at all meetings), but unfortunately ITC did not meet the set criteria. It is also worthwhile to note that CORAF/WECARD is currently chairing the ITC Board.

The local learning, however, has been augmented by the institution of PROGEBE led *innovation platforms* (IPs). TE noted the initiative taken by PROGEBE to develop innovation platform on each project site on breeding, branding, and marketing of ERL. PROGEBE has introduced, trained on, and facilitated the establishment of IPs. The approach was to undertake the planning for the IP in a decentralized participatory manner and enable the community to decide on aspect to focus within the livestock value chain. IPs were established according to the IP establishment guidance on which the results of the approach were scientifically published. A good example is the Dinguiraye IP which is fully established and is already showing results and benefits among community members (TE met with this community during the Mali mission). The focus (collective learning space and incentive to work on joint solution to a common problem) is on sheep fattening and marketing, especially for Tobaski (Eid Al Adha).

Innovation platforms in a pilot exercise however, with boundaries are challenging because in the end for them to be out scaled they must be linked to the more systemic national learning system involving the institutes and the technical partnerships being developed and tested including links to the government extension services. These are therefore great results and pilot practices that can be taken forward in follow up initiatives.

The scoping of the institutional bottlenecks in ERL and NRM management has enabled the pathway for future engagements in national legal frameworks, but this has not been conclusive. TE noted that in Senegal, the agro-sylvo-pastoral framework existed already but the PROGEBE-Senegal team has contributed to its fine tuning and dissemination. Institutional frameworks, i.e. laws, policies and budgets that give the lower hierarchical levels of the state and easy access to the means for engaging in participatory planning for NRM and ownership over resources, a process of POAS are not yet developed and continuing to strengthen institutional capacity for participatory NRM-ERM local level planning is a key next step in each country. Replication of secondary sites has been effective (POAS done /ongoing capacity strengthening in primary sites. Most infrastructure is completed (all scheduled to be completed by end of AFDB project) including (water points, slaughter house, markets, in Mali, for example, at the secondary site Tousseguela infrastructure done. More relevant to the Afdb project and less to the GEF management steering committee have however, been established, and stakeholders have been trained and imparted skills to ensure sustainability with support of the local authority. By project end, the end user groups of commercial infrastructures in four countries will be enabled.

To increase chance of sustainability, future (infrastructure projects might build on the project learning to include the physical and financial participation of the beneficiaries of commercial infrastructures where

feasible. In addition, knowledge sharing and learning programmes to manage infrastructure (small dairy processing units, livestock markets, slaughter houses, and areas including documentation and classification of materials to make retail points) is also needed to be continued. These elements can be considerations for when new national initiatives are designed. The realization of the local level organizational capacity and mandates requires a broader scope and mandates of institutions at national level in order to take the positive project results forward. In addition the work on knowledge management and communication still has steps. The project still has time to finalize a full classification and documentation of all the project written and published deliverables and documents.

- **Relevance Highly Satisfactory (HS)**

The PROGEBE project contributes to strengthen natural resource management, food security, and poverty reduction in West Africa. The goal of this project remains very relevant. In the pilot sites, activities have contributed to the expected development outcome through investments in human resources and infrastructure, framed in a participatory approach and giving responsibility to the users.

The GEF and AfDB project components are complementary and, while they do not share the same focus, they do target ERL and their keepers. The main reason is economically linked to the generally lower productivity of ERL. At the same time, excessive habitat degradation would create a different suite of problems to breeders, including difficulties in finding water and green pastures. It is assumed that with these challenges, the option of improved ERL roaming conserved habitats is more economically attractive to regional breeders. The project may or may not have managed to show this in economic terms (to be determined-see recommendations on conducting CBA). This is best formulated in the terms given by the UNDP/GEF ProDoc, in situ conservation of endemic ruminant livestock, their unique genetic characteristics and their habitat because one does not go without the other. Without habitat conservation, not only will the N'dama cattle be replaced by non-trypanotolerant Sahelian animals, but local people will lose their livelihoods, and the region will lose its biodiversity. Mali is an excellent example of ERL habitats under threat. Further, that habitat conservation is pursued as a parallel objective because GEF investment in conservation would not be restricted to the biodiversity enshrined in the ERL. It had to go beyond that and also focus on habitats, given the symbiotic relationship between the livestock, the habitats, and the herders.

The UNDP/GEF project goal to sustainably use the biodiversity that the livestock represents and its natural habitats in West Africa is thus highly relevant for the region. In the pilots visited by TE, there is evidence (outlined in this report and annexes, including the testimonials from beneficiaries and local stakeholders and the reports of all MTE meetings) that show that project activities have contributed to conserve the habitat and biodiversity of endemic ruminant livestock and improved their productivity. Furthermore, the GEF project objective *"to establish effective models for community-based management of endemic ruminant livestock and its habitats at project sites and strengthen production, market, and policy environment in support of these breeds"* has been positively tested and is demonstrating impact on the local environmental situation and directly contributing to the development outcome through targeted investments in human resources and small scale infrastructure.

A excellent flagship result of the NRM aspect of the project has realization of the decentralized and participatory community based natural resources planning approach (POAS), integrating local environment, social, and economic issues aimed at empowering and imparting knowledge, skills, ownership, and responsibility in the sustainable management of the natural resources to the primary resource users and helping to organize and capacitate local resource producer groups.

As the project is finishing soon, there is need to provide small inputs to ensure the financial contribution of the users of larger commercial infrastructures, i.e. support the community organizing efforts in some way around the unfinished infrastructure(at date October 2014). For the GEF investments directed at innovative community based technologies and learning natural resources management, notable results included cost benefit analysis approach (not tested for end line NRM values yet) for planning NRM with local communities (POAS); community-level, NRM capacity strengthening, sensitization, and education; and review of policies for local engagement in sustainable land use planning and through fostering low technological innovations. while the scaling of the NRM approach can be done without significant resources, TE found that local communities contributed to alternative sustainable land practices and small works activities (rehabilitation of water points) themselves, even contributing financially. A key lesson learned, however, is that without sustainability plan and some financial incentives in that regard, the risk of under-appreciation of the value of goods by both individuals and communities is increased. For transformative regional development and NRM results, the UNDP/GEF investment needs continued and longer term systemic investment in human capital and especially with instilling the ERL NRM approach in government agencies. Many efficient but easy-to-implement technologies, such as improved habitat, feeding, etc., have been introduced and do not need much investment to be scaled by the government department staff, but they do need to be transferred effectively. Investments in more systemic work on institutional capacities are the next step at the national level.

This was a pilot project to prove a linkages between ERL and NRM with intentions to strengthen capacity and secure scale up within its designated time frame, institutional capacity strengthening is still needed with in government institutions and a concept plan should be developed that provides governments with a strategy for next steps. Briefly, all marketing infrastructure and capacity building has been implemented smoothly in primary and secondary sites. The national follow-up work for out scaling will involve the national institutions and the imparting of capacities for bridging the technical and extension services to communities through creating the enabling environment for participatory planning (i.e. POAS) and services for the local participatory land-use planning. Notably, the NRM work on land use planning was not a primary focus of the project, but became so and project managers took initiatives to develop local conventions and MoUs with national institutions providing learning services for strengthening capacity on GIS mapping and finalization of community land use plan (POAS) . This has been highly satisfactory (and in line with UNDP/GEF project development goals). Such development results-based implementation (see monitoring section) is a major success factor and its real result will be in the national uptake. UNDP national offices can help design new project concepts building on this process and learning successes. National level learning institutional / scientific collaboration protocols have also been signed for the following institutions: DNEF for Mali, CSE for Senegal, NEA for the Gambia, and DNEF for Guinea.

- **Effectiveness & Efficiency Satisfactory (S)**

Based on the project development objective, the project stakeholders represented at the inception workshop approved six strategic lines (SIL), merging the project result areas as defined by GEF and AfDB:

SIL-1: Preservation of genetic characterization and improvement of production and productivity of ERL;

SIL-2: Improvement of the valorization of the ERL and its products;

SIL-3: Sustainable management of ERL and its ecosystem;

SIL-4: Contribute to building the legal, policy, and institutional frameworks;

SIL-5: Cooperation, knowledge management, exchanges, and coordination;

SIL-6: Project management.

PROGEBE Strategic Intervention Line I: Preservation of genetic characteristics and improvement of endemic ruminant livestock production and productivity--ERL characteristics are conserved and their production and productivity sustainably improved: SIL 1: one breeding program for cattle, sheep, and goats per country, except for Guinea, which has two for cattle. Hence breeding programs would be five for cattle, four for sheep, and four for goats.

PROGEBE Strategic Intervention Line II: Improvement of the valorization of endemic ruminant livestock and its products--Commercialization and marketing systems for endemic ruminant livestock and livestock products are improved: SIL-2: After appropriate training, associations of professionals were given responsibility of managing the use and maintenance of 19 livestock markets, 17 slaughter areas/houses, 14 well equipped small dairy processing units, and over 90 constructed water points with drinking troughs (one third with borehole and solar powered pump).

PROGEBE Strategic Intervention Line III: Sustainable management of endemic ruminant livestock ecosystems natural resources and ecosystems in project sites conserved and sustainably used, based on a community and integrated approach to the management of ERL and its habitats. SIL-3: NRM was implemented by participatory establishment of 15 POAS in the primary and secondary project sites. The POAS included the creation of livestock roads, firewalls, and brigades fighting bush-fires and committees for management and monitoring. This reduced conflict and notably across all project sites, bush-fires. The effect on wildlife and flora (RN) is yet to be quantified, but the community benefits increased, together with the motivation for NRM, through the sale of products, such as honey, after the introduction of new technologies.

PROGEBE Strategic Intervention Line IV: Legal, policy and institutional frameworks were established and implemented at the local, national, and sub-regional level for in-situ conservation, production, and marketing of endemic ruminant livestock in the four targeted countries. National studies on policy, legislation, and legal frameworks related to ERL were undertaken in all countries and appropriately documented with national sharing and validation workshops held. The activities resulted in impact on national regulations in four countries at the start of a regional network for ERL in collaboration with FAO, UA-BAR, and CORAF/WECARD and in a plan to revitalize ITC to become WALIC.

PROGEBE Strategic Intervention Line V: Cooperation, knowledge management, exchanges and coordination—a sub-regional system for cooperation, information exchange, and coordinated support for the sustainable management of endemic ruminant livestock is established and operational. SIL-4: This SIL was implemented through workshops and advocacy; SIL-5: This SIL aimed at Knowledge Management and supported the training, workshops and advocacies. For the latter, it used local radio and produced several videos.

PROGEBE Strategic Intervention Line VI: Project management—the project has been effectively managed, implemented, monitored, and supervised in the four targeted countries. SIL-6: The project focused successfully on a good disbursement rate. By June 30, 2015 all marketing and processing infrastructure will be completed and practiced for at least one year. In addition by then all national sustainable strategies will have been approved by the respective governments and the model will have been published. The breeding programs are fully operational in the four countries, in particular in the Gambia and Senegal and in Mali; we are seeing a substitution of ERL by other races. Also notable has been that the PROGEBE approach and strategy is being scaled up at the secondary sites as planned and that new projects are adopting the

PROGEBE planning approach in their monitoring and evaluation (WB CORAF regional project) (PROGEBE Project Manager). The need is now for this all to be strengthened and sustained by the governments.

- **Mainstreaming**

The project has contributed to national priorities and has been embedded in certain (not all-also read TE reports of meetings with stakeholders) activities at the local and regional level. For example, it has contributed to improved governance over natural resources and livestock production through the excellent efforts made to organize local users and to capacitate regional, national, and local beneficiaries and the creation of local user and producer groups. Communities with knowledge, values, and skills to generate resources, infrastructure, and capacity to understand the value of and to manage better their assets, including livestock and surrounding natural habitats. In terms of poverty and economic development, this was the overall sector goal of the AfDB components and is also inherent in the GEF approach to institutional NRM. This project has piloted an approach that will contribute to poverty reduction and economic development through improved local governance and community resilience at pilot sites. This is expressed in the results in terms of the better management of local habitats, improved local health for animals and for humans, and improved meat and milk production.

Mainstreaming gender was a key component in the project design and implementation. In this regard, female site animators actually represented 43% of that category of staff. Capacity building efforts account for 7.4% of the technicians trained in animal health; 22.1% of the livestock farmers trained in habitat of small ruminants, animal feeding, reproduction management, and breeding; and 26.8% trained on fodder cropping techniques and compost development. The 14 mini-dairies are supporting women's groups for income-generating activities. In most countries, these activities normally undertaken by traditional pastoralist women who are now the focus of dairy processing activities. Regarding the development of milk processing units, project learning's have been rich. For instance in cases observed, the project took an affirmative approach to dealing with the women's empowerment issues and also with regards to inclusion of traditional (transhumant) pastoralists, whose women have the traditional right to market the milk not needed for the household and thus have a say on the revenues. However, noting that in cases pastoralist men are still (by experts interviewed active in the region) apt to exclude women when a factory or big money maker is part of the initiative⁵. In this project however in all the mini dairies visited and in particular noting the work of project at Dinguiraye, Niamina, the women are the major players. Small ruminant rearing is traditionally accessible to women in most African tribes, and improving small ruminant housing was therefore an important project focus...

Training provided by the UNDP/GEF project has been instrumental in teaching women new skills and helping them leverage a sustainable livelihood from yoghurt and Cheese manufacturing. The steps are still however, modest, and there is a long way to go to transform such initiatives, currently on a local cooperative basis, into growing and dynamic entrepreneurial undertakings. TE agrees the experiences facilitated by the project have been highly empowering to women and that with further government initiatives to invest and out scale this can be a transformative effort across the region.

⁵ This is an observation of gender/livestock experts in Mali, e.g. : Catherine Le Come: Senior Agriculture Advisor, SNV Netherlands Development Organisation. Rue 17 Porte 305 Badalabougou Est. B.P 2220 Bamako, Mali. T +00 223 20 23 33 47. M +00 223 76 40 80 11. Email: clecome@snvworld.org.

- **Sustainability Satisfactory (S)**

Financial Sustainability

In the short run, three countries committed budgets to support extension of project activities for consolidation and further capacitating the local actors. In terms of financial sustainability, good indicators of expression of satisfaction include the following:

1. The government of Mali has approved a new additional budget to cover the project activities until the end of 2015 (one year after the project end) and included Madina Diassa in its general budget;
2. The government of Guinea reserved 500,000 USD to support the finalization of over 20 water points;
3. The government of Senegal has endorsed the sustainability strategy into the national budget;
4. The co financing mechanism has a positive effect on catalyzing the sustainability. For example, all countries were found to be in positive competition.

These funds are to be focused on consolidation of present sites. The governments of Mali and Guinea are working toward the approval of the project sustainability strategy to be embedded into the national planning and budget. The preliminary data demonstrate notable trends:

(1) ERL mortalities are halved and productivity increases slightly, but farmers tend to accumulate most benefits in larger herds. To prevent reduced effectiveness of the improvement herd management, strategies that might convince farmers to sell animals should be developed.

(2) The CBA (see AfDB TE report for CBA) demonstrates that breeders have for the first time agreed to invest in the production of fodder plots at sites. For instance in Senegal, the farmer's received only seeds for fodder production and for farmers engaged in seed production the project provided also pesticides."

This commitment is demonstrated by the provision of land, soil preparation (plowing), and supply of wood for fences. In addition, recipients have undertaken individual forage seed production to expand their fields or help other farmers. More practical approaches, such as living hedges, are recommended, but it takes time for the viability of such.

The knowledge element is key for CBA as a capacity and or learning outcome of project activity. The work in communities is supporting local awareness of the cost of business as usual. CBA is also a project modality and in future might become an indicator or focus of the Capacity building approach.

(2) The improved livestock markets are profitable investments because there are benefits for traders. For mini-dairies also, profitable business cases exist. To increase financial sustainability of projects, the users group should participate through taking commercial credit. Future projects of this type could be submitted to private banks for funding.

(3) Mini-dairies increase protein availability and, together with other enterprises related to livestock and forestry, contribute to poverty alleviation and increase the motivations both for ERL and NRM.

(4) NRM, including marked livestock roads as well as firewalls, is a big win-win, both for the resource base and for social peace (sharp reduction of conflicts), but to stimulate herd off-take, the use of a PES through pasture rights should be considered. Investments in reclaiming land or recovering the productivity of land have demonstrated to be profitable. The financial and economic benefits of the NRM and the options for

PES, including their social payments (in-kind), need to be assessed using a "willingness to pay" methodology.

Institutional Sustainability

Within institutional aspects, consolidation of infrastructure activities and strengthening community organization were significant, but infrastructure management needs more time as a result of being realized late. To harness the political will to pursue the PROGEBE trypanotolerant ERL support, more policy advocacy is needed, including model documentation supported by a financial and economic cost benefit analysis at the household, local, national, and regional levels. In the short run, three out of four countries (Senegal, Mali, and Guinea) have committed budgets to support the extension of project activities for further capacitating the local actors. These funds are to be focused on consolidation of present sites. Tools for herd management at farm level are available in Mali (Outil de Gestion Troupeau); other countries can duplicate those of training and capacity strengthening. Consolidation of activity for project success would require at least one year after the last infrastructures have been handed over to a local management committee.

Scaling-out is feasible as demonstrated by observed political will gained and project-generated learning and capacity building at all levels. Scaling-out would require a national project or program with a design that would downscale PROGEBE activities regarding monitoring. The need is for focus on cross-sector collaboration for POAS and livestock extension. The engagement of three states to pursue the ERL activities is not broad institutionalism. In terms of institutional sustainability, the greater risk is regional coordination and knowledge sharing to continue the collective transformative work. The regional network is a clear result of this project, and the capacity of ITC to take this forward remains in serious question. ITC needs to be supported by the states instead of institutions to become an effective regional institution itself.

The "willingness to pay" question is still largely unexplored, for both local and national levels. To support advocacy for scaling-out the PROGEBE approach, the economic viability of investments in NRM and the trypanotolerant breeds needs to be assessed in total economic terms. Though studies have suggested that the trend away from trypanotolerant populations is not necessarily due to deliberate decisions by farmers but is their response to forces outside their control (e.g. market and policy distortions and incentives), livestock herders for various breeds have ranked the importance of disease resistance higher than productivity. The project did produce scientific evidence for either for the ERL intervention or for the effect of the POAS on natural resources (see ILRI report on bush fire, POAS evaluation report of Senegal, stock route evaluation report of the Gambia, ILRI report of assessment of social processes in relation to natural resource management interventions).

The *foundations have been laid* for further investments in housing, feeding, and reproduction management through herding and selection. In the first year post project, the engaged funding in three of the four states will focus on consolidation, but pursuing the ERL-NRM approach needs proper institutional embedding (see recommendation for national follow up). However, sustainability can be assured with further regional support for the open nucleus breeding programs of stations and associations of breeders have yet to demonstrate their capabilities; According to the AfDB evaluator- a livestock specialist, who had been engaged on these issues in early 2000s, the discourse in Gambia is similar to that at the end of PROCOREL eight year ago, while three year later, in 2009, both ITC and GILMA(GILMA's challenge could be regarded as part of ITC's financial constraints) had issues. Another is the partnerships at national and regional level, are likely to disappear if institutional capacities are not re built. National funding of the PROGEBE does not seem to be high enough to maintain these linkages. The funding for consolidation comes from a sectoral ministry and options to provide incentives to staff not incumbent to this ministry might be limited. Thus,

crucial cross-sectoral collaboration is needed. However, PM put forth that Farmara might support in this regard.

The developing regional network for *livestock genetics* and *ERL-NRM* is a clear result of this project; however, the institutional capacity of ITC to take this forward also remains in serious question. ITC as an executing agency and the livestock research center should have ensured the sustainability of PROGEBE. However, it was clear since the start that ITC lacks capacity and relied on RCU and PROGEBE to develop its capacity. In addition to what was agreed in the project document as support to ITC, AfDB has agreed that the project should provide an additional USD 200,000 to support ITC revitalization process and transformation into WALIC. Also the project recruited an international capacity building and institutional development expert.

Meanwhile; the countries went into adaptive management and worked with their national institutions to ensure post project consolidation and sustainability in Senegal through N'Dama cooperative and CRZ and in Mali through the establishment of an autonomous N'Dama entity in Madina Diassa (CCMD_BRE), which will report directly to the office of the president and have direct yearly budget. The Government of Mali has also constructed a permanent office for PROGEBE (PROGEBE has been institutionalized in Mali). In Guinea the national ERL technical committee for the revitalization process of the livestock research centers established by the Ministry of Livestock has developed a proposal on breeding center revitalization within the ministry of livestock for approval. This is one of the priorities of PROGEBE-Guinea before closure.

ITC has made tremendous efforts during the project period to go into transformation. Consider WALIC (new ITC) as an institution that is planning to build on the legacies and achievements of the old ITC. Efforts taken up to date in this regard need to be emphasized in the discussion of sustaining PROGEBE.

Environmental sustainability

Although this is a successful environmental project, there are learning from employing consistently environmental and social safeguards to every GEF project. In the Gambia, project did not undergo a prerequisite EIA which is now a prerequisite for all AfDB project before approval by the Government. The TE learned that PROGEBE project started later (AfDB appraisal report not the UNDP /GEF ProDoc) than these requirements. The new head of the Gambia NEA was recently appointed, and in past was hired by PROGEBE to do the ESMP monitoring (TE team saw the contract). However, according to the PM, the former head always had high marks on PROGEBE and this could have been a territory issue. This was not seen as problematic as the project was ongoing before the regulation, but the government agency has taken note of the fact for any related future work. The farmers received only seeds for fodder production and for farmers engaged in seed production the project provided also pesticides."

The information collected for monitoring does not go into a national environmental monitoring system to monitor environmental change. This situation would need attention for system strengthening and inclusion in the future initiatives.

Key issues	Lessons learned	Target audience
1. Improved processing and packaging	Though a means and targets of a project are mostly well defined, in particular a long-term project with a long conception phase and a research and development component should have explored more options to integrate innovations such as PES, dry toilets, and biodegradable packages, which can represent profitable investments. Local civil society (local NGO) can develop a proposal to be funded by SGP. The innovations were on using renewable energy, solar water pumps, biological cheese production, best bet options related to livestock management techniques.	AfDB, GEF UNDP
2. Participatory land-use mapping and GIS	The participatory and community based mapping and use of GIS in this exercise contributes to the demarcation of accurate user zones and the basis for the monitoring. GIS can be employed to support the community-based management, can be scaled for national monitoring. GIS mapping has been used by the project for the site mapping for the POAS cartography and for vegetation cover and land cover. In each country the project worked with GIS department to produce maps for cartography and monitoring.	National institutions, GEF
3. Awareness on environmental pollution	Campaigns on all aspects of environmental pollution at all levels in society are needed at consumer and producer level on the need to compost -collect/have destroyed/decomposed. At government level on the need to discourage the production and use of plastics and stimulate the production of biodegradable packaging material. Project focus was more on habitat conservation, sustainable use of forestry project, bush fire fitting/control, reforestation, soil conservation and composting.	Countries GEF UNDP
4. Institutional sustainability	The complexity of the institutional framework of the project and weaknesses of the International Trypanotolerance Centre (ITC) in terms of technical support for the project is compromising the sustainability of the project's achievement.	AfDB, Countries UNDP

In all project countries visited the mini-dairies use non-recyclable plastic packages, thus contributing to the environmental pollution. A more sustainable solution can be identified in a GEF project in particular. Throwing away plastics is custom in the region, and the ingestion of plastics has become a major cause of mortality among ruminants. In addition, waste water is not always led underground through a decomposer, and the toilets are ordinary latrines. Both increase the risk of infection. Also, some of the forestry products are packed in non-recyclable materials. Recyclable packaging is available or production is being piloted, and high quality dry toilets are available for regions with insufficient water⁶. TE urges the GEF at large to promote investments in research and the creation of enterprises able to produce both high quality dry toilets and decomposable material and adapted equipment for packaging of milk and forestry products in Africa, Asia, and South America. A positive note comes from the effects on human health. On average the HDDS improved, but other positive impacts have been mentioned to come from the availability of better processed products and of keeping livestock away from the central village well through the construction of both livestock wells and markets.

⁶ R&D has developed models especially for remote coastal areas (fisher villages) already in Asia.

Lessons learned related to sustainability

• Impact

TE evaluators considered the sustainability of the impacts based on the following criteria: institutional capacity development, women's empowerment, dynamic learning, natural resource management and production, user responsibility, local market development, increased food-security, and income. Major positive quantitative and qualitative environmental impacts identified include (i) restoration of degraded ecosystems; (ii) management of natural resources within their territories by rural communities in the project area; (iii) reduction of the nutritional deficit and an increasing income for agro-pastoralists through boosting productivity of cropping systems, crop diversification, and promotion of endemic livestock rearing along with adequate zoo-sanitary monitoring; (iv) improving the livelihood of women through the development of small ruminant rearing and establishment of mini-dairies; and (v) creation of cattle, sheep, and goat open breeding nuclei for the preservation and improvement of the trypanotolerant endemic ruminant livestock through increased knowledge of their genetic traits.

PROGEBE is implementing natural resource management interventions geared towards the preservation of the ERL habitat, such as bush fire control and innovative land use systems, including instituting local conventions. The positive impact of such interventions in terms of reduced habitat degradation and segmentation could act as incentives for farmers to raise endemic ruminant livestock.

The project generated some additional and unanticipated outputs and outcomes (Table 2). These contributed to the more generic impacts on food security and improved income, but they contributed also to the specific impacts on improving ELR and NRM.

Additional outputs/outcomes

Description	Type (egg. gender, climate change, social, other)	Positive or negative	Impact on project (High, Medium, Low)
1. The reduced conflicts due to the devolved NRM (Natural Resource Management) were among the most appreciated project impacts, due to the integration of marked livestock roads and fire-breaks in the POAS.	Social and NRM	Positive	High
2. The auxiliaries in some countries included vaccinations against poultry. This was very successful and registered a high adoption rate. As poultry are often kept by women this contributed strongly to improved resilience and their empowerment.	Livestock and Gender	Positive	Medium
3. The trainings in the production of mineral blocks evolved in some places into small enterprises for vulnerable women (associations) which allowed them to increase their resilience while contributing to improving livestock production and productivity. In other places. This activity was left in the hands of livestock owners who had already accumulated wealth.	Gender and Livestock	Positive	Medium
4. The training in beekeeping using Kenyan hives and the processing and marketing of honey and wax improved income, health, biodiversity, and the awareness on the importance of NRM.	Livelihoods and Gender	Positive	Medium
5. The training in improved processing, packaging, and marketing of non-timber forestry products, such as soap (from tree in Guinea), tamarind (<i>Tamarindus indica</i>) and shea butter	Livelihoods Gender	Positive	Medium

(<i>Vitellaria paradoxa</i>) improved income and the awareness on the importance of NRM.			
6. Training of farmers in training of bulls for animal traction, thus linking the herd to the traditional main component of their livelihood (crop farming) and strengthening their motivation to take care of the cattle themselves, instead of letting a herder take the benefits.	Food security	Positive	Medium
7. The training on the production of the cane-rat (<i>Thryonomys swinderanus</i> or <i>gregorianus</i>) in Guinea promotes diversification and alternative livelihood options.	Food security Income	Positive	Low

4. Recommendations & Lessons

- *Best and worst practices in addressing issues relating to relevance, performance, and success*

Relevance

1. Livestock project design: There's no threat to the ERL populations per se, but there's a threat to their habitat, the sub-humid forested savanna, from unsustainable practices. Therefore, linking ERL to NRM, while giving responsibility to the users of resources and creating groups for management and production, contributes to positive impact on animal production and natural resources (e.g. the free provision of wired fencing material for fodder gardens and community forests reduces chances for autonomous replication and out scaling).
2. Livestock improvement: The provided basket of livestock services and production technologies, including prophylaxis healthcare, dry season and mineral feeding, improved housing for small ruminants in particular, rangeland management and improvement, and farmer capacitating (among others in herd monitoring), is demonstrated to be the right strategy to improve ruminant production and farmers' incomes.
3. Project funding: Linking investments in infrastructure to the organizational capacity building of the infrastructure and 'works' in the four contexts contributes to improvements in the value chain of animal products and also to increased volumes of marketed animals and milk. To increase chances of sustainability, future projects can include considerations of financial and even physical participation (where appropriate) of the beneficiaries in the development and the strengthening of the commercial infrastructures (small dairy processing units, livestock markets, slaughter houses, and meat retail points).
4. Project structure, implementation, and evaluation: The MTE of GEF recommended creating an ad hoc technical steering committee to advise the Regional Steering Committee and the RCU. A technical steering committee could reduce this space for project management (conservation of ERL and its habitat), economic development, food security, and poverty alleviation in the four countries.

Effectiveness

5. Natural Resources Management
 - Linking communities to extension services through community level facilitators and collaborative and participatory planning approaches supports conservation of ERL habitat in the four countries.
 - The approach using female village level animators as facilitators of community-based user groups is building trust for constructive community organization and collaboration for ecosystem and land management. It is also a practice that is supporting technology sharing and uptake.
 - Accompanying measures, such as improving beekeeping, local production of mineral licks, creating or improving water points, and making these accessible by livestock roads, are important tools for successful local conventions on NRM.

- Creating local rules and committees for managing NR, monitoring NRM and transhumant reception in communities is essential.
 - More focus can be on improving access to national and local level institutions that have the capacity to carry along the implementation of POAS and ERL breeding; e.g. the code/norm on the agro-silvo-pastoral system. For example, in Senegal project has linked all these aspects but still needs capacity to implement financial and institutional instruments (sustainability plan can include this aspect). POAS is a tool which is developed, implemented, and monitored by the communities themselves. The project supported facilitators and the overall PROGEBE approach helped facilitate the process.
 - Cost Benefit Analysis is a modality for implementation of NRM as much as it is an input for measuring effectiveness of ERL approach.
6. Endemic Livestock Resources. Improving livestock genetic performance is a matter of longer duration and breadth. This depends on the individual country's engagements while the institutional frameworks and the producer's organizations which are not yet firmly established.
 7. Improving livestock breeding is a matter of breadth. Perhaps other choices, such as a reduced size of the RCU and more focus on strengthening ITC for capacity building and communication, might have left budget and thus time for a longer GEF involvement. Now the consolidation depends on the individual country's engagements while the institutional frameworks and the producers' organizations are not yet firmly established. For a livestock project to be effective the length of its extension and training, components should be double that of the lifetime of the investments component.
 7. Results should be published in a scientific journal article.
 8. For project design, having a scientific implementing partner may strengthen a project if this partner focuses on learning that builds on the needs of the regional and national experts, on supporting the latter with appropriate resources (bi-lingual experts), and on being a partner for dynamic monitoring and sustainability of the efforts.
 9. For implementation of infrastructures, the design of the livestock, dairy, and water point infrastructures can be quality assured and professional supervised also by the project unit and a strategy for a regional standard can be considered for better results.
 10. For institutional Capacity Building, the complexity of the institutional framework of the project and weaknesses of the International Trypanotolerance Centre (ITC) in terms of technical support for the project compromised the sustainability of the project's achievement. While it is true that ITC could not give much technical support to the PROGEBE implementation, there is a need to emphasize how ongoing revitalization efforts through WALIC can fill the identified regional level institutional gap. The present efforts to launch WALIC help fill this gap.

Efficiency

11. See 9 above...At times, the design of the livestock, dairy, and water point infrastructures was not well thought through, as the construction companies selected, lead to delays in delivery and in some cases inappropriate locations led to their (temporary) under-utilization or significant delay in utilization. These situations might have been prevented by the intermittent inclusion of a civil engineer within the project team, which might have produced a regional standard which would have been an excellent result.
12. Lack of appropriate technical skills and personnel required by some technical partners to implement the protocols efficiently and in a timely manner have led to significant delays in the implementation of the project and also to the inability to organize ERL competitions.

- *Corrective actions for the design, implementation, monitoring, and evaluation of the project*

Consolidation and out-scaling

1. The TE concludes that the PROGEBE approach and strategy is being scaled up at the secondary sites as planned and that new projects are adopting the PROGEBE planning approach in their monitoring and evaluation (WB CORAF regional project) (PROGEBE Project Manager). The need is now for this all to be strengthened and sustained by the governments.

2. ERL productivity and selection

3. Branding of ERL

Branding is important in breeding because of the related market value, and therefore choosing the fawn color of N'dama, as for the Zebu Maure and Azaouak, is crucial even if there's no hard evidence for the superiority of the color. Physical arguments: white skin is more sensitive to sunlight and therefore demonstrates skin diseases more often, and black accumulates more from the sun, while red seems to be a good intermediate; reason for which it's the branding color for many breeds globally.

4. CBA assessment possibility for autonomous adoption of technologies

Cost Benefit Analysis, or even just partial budget analysis, should be done on all technologies before proposing them to farmers. The project failed to do this, and to prevent mistakes in the consolidation phase by the national teams, the TE recommends to tender short term assignments for four national experts and an international team leader to collect reliable data for a partial budget analysis of the proposed package of technologies. Together with the qualitative information already gathered. This may provide valid arguments toward decision makers on budgets for consolidation and multiplication of the PROGEBE approach.

5. Economic CBA for advocacy among policy and decision makers

One of the main positive results felt by the beneficiaries is the reduction of conflicts between herders and crop farmers. The POAS for NRM management will also have positive effects on biodiversity and the availability of timber and non-timber products. The TE recommends to do a preliminary assessment of the aggregated benefits using the "willingness to pay" method in order to compose financial arguments for advocacy towards policy makers.

6. Resilience in the Sahel

Historically, investments in recovery or maintenance of land productivity have demonstrated a high cost recovery rate. TE recommend AfDB to advocate with the implementing agency of the project Resilience in the Sahel, which funding has been approved in October 2014, to learn from PROGEBE the experience especially in terms of the coupling of the conservation of ERL and its habitat through the participatory land-use management plans (POAS/PAT). Not replicating the integrated ERL-NRM approach will not only increase the risk to biodiversity and social peace, but also for regional food security and economic development.

Annexes

- Annex 1. Terms of Reference
- Annex 2. Itinerary/work program
- Annex 3. List of persons met/interviewed
- Annex 4. List of documents reviewed

Annex 1. Terms of Reference

INTRODUCTION

In accordance with AfDB, UNDP and GEF M&E policies and procedures, all projects are required to undergo a terminal/final evaluation upon completion of implementation. These terms of reference (TOR) set out the expectations for a joint Terminal/Final Evaluation (TE) of the AfDB and GEF components of the Regional Project on Sustainable Management of Endemic Ruminant Livestock in West Africa (PROGEBE). The essentials of the project to be evaluated are as follows:

PROJECT SUMMARY TABLE

Project Title:	Regional Project on Sustainable Management of Endemic Ruminant Livestock in West Africa (PROGEBE)		
GEF Project ID:	PIMS 1119		<i>at endorsement (Million US\$)</i>
AfDB Project SAP Code	P-Z1-AAE-004 (ITC, The Gambia et Guinea) P-Z1-AAE-O10 (Senegal) P-Z1-AAE-O09 (Mali)	AfBD total: broken down as:	\$29.767 239M
AfDB Grant number	2100155006866 (CIT, The Gambia & Guinea)	(i) AfDB Grant	\$15M (10,240,000 UA)
AfDB Loan number	2100150016493 (Mali) 2100150016494 (Senegal)	(ii) AfDB loan	\$14.3 (9,760,000 UA)
UNDP Project ID:	00046252	GEF financing:	\$10.0M
UNOPS Project ID	57220		
UNDP-Mali Project Award	54953		
Country:	Gambia, Guinea, Mali and Senegal	IA/EA own:	0
Region:	West Africa	Government:	\$3.4M
Focal Area:	Biodiversity	Other ITC, ILRI	
AfDB Division	OSAN4/OSAN2	Total co-financing:	\$13.4
FA Objectives, (OP/SP):	GEF Strategic objectives: BD-2 Mainstreaming Biodiversity in production.	Total co-financing:	\$32.6
Executing Agency:	UNOPS/ITC	Total Project Cost:	\$42.6M
Other Partners involved:	ILRI, ITC, FAO	ProDoc Signature (date project began):	29 June 2007
		AfDB Grant signature date	30 June 2006
		AfDB Loan signature date	16 October 2006
		(Operational) Closing Date:	Proposed: GEF: 2016 Actual: GEF: 2015
		AfDB: 2013	Grant: December 2014 Senegal Loan: June 2015 Mali Loan: December14

OBJECTIVE AND SCOPE

Project context:

In partnership with the Global Environment Facility (GEF), the African Development Bank (AfDB) and United Nations Development Programme (UNDP), the Governments of The Gambia, Guinea, Mali and Senegal, are currently implementing an integrated program which aims to remove existing barriers to the in-situ conservation of three priority endemic ruminant livestock species – N'dama cattle, Djallonke sheep, and the West African Dwarf goat and improve their productivity. In addition, the project will develop and implement models for community-based conservation and management of critical habitat for these species, thereby demonstrating strategies for preserving the unique genetic trait/habitat complexes that are of global significance. The project design is experimental, developing and testing an integrated approach to livestock conservation and management that simultaneously addresses livestock breeding and productivity, market development and economic policies, incentives and distortions, traditional and evolving patterns of resource use and land tenure, policies and legal frameworks, and information sharing and communication at the national, regional and international levels.

The largest remaining populations of endemic livestock in the sub-region of Senegal, Gambia, Mali and Guinea consist of N'dama cattle, Djallonke sheep and West African Dwarf goats. Although numbers of these breeds are still relatively high, their future is in jeopardy due to varied and complex threats, which can be broadly grouped into three primary categories: 1) destruction and degradation of habitat critical for endemic ruminant livestock; 2) cross-breeding between endemic ruminant livestock and exotic livestock breeds; and finally, 3) abandonment of endemic ruminant livestock raising due to production and market constraints. In addition, very little information exists on actual populations or rates of cross-breeding of these targeted endemic ruminant livestock breeds, so that the exact magnitude of the threat is unclear.

Objectives and Scope

The project aims to remove the existing barriers impeding the in situ conservation of three priority species of the Endemic ruminant livestock (ERL); N'dama cattle Djallonke sheep and West African dwarf goats.

The GEF development objective of the project is to ensure the sustainability of population of species of ERL targeted in the West African countries in order to improve rural economies and ensure the conservation of these species and their genetic traits, which is unique in the world. The AfDB sectorial objective of the project is to contribute to food security improvement and poverty reduction

The immediate objectives of the project are to:

- 1- Preserve the biodiversity of ERL, and to improve the productivity,
- 2- Establish effective models of community-based management of ERL and their habitats at the project pilots' sites, as well as to strengthen production environments and their trading and policy framework.

Project Areas

The project target zone consists of eastern Gambia, southern and southeastern Senegal, western and southern Mali, and central and southern Guinea. This transboundary zone consists of four vegetative formations, dominated by wooded savannas, as well as shrub savanna, open forest, and riparian gallery forests. The tree strata is dominated by species such as *Daniella oliveri*, *Anogeissus leocarpus*, *Khaya*

senegalensis, *Burkea africana*, *Bombax costatum*, *Pterocarpus erinaceus*, *Terminalia macroptera*, *Combretum glutinosum*, *Enteda africana*, *Isobertina doka*, *Detarium senegalensis*, etc.

Although the vegetative formations are fairly similar across this transboundary zone, its topography is more varied. In Guinea, the landscape is highly variable and consists of rolling plains and plateaus broken up by the Fouta Djallon and Nimba Mountains. Southeastern Senegal is dominated by a high plateau and frequent hills, while in Gambia and Mali, the landscape is more flat. Within these landscapes, the project has selected twelve primary pilot sites in which to implement field level interventions, as well as eight secondary sites for replication of selected activities. These sites represent a wide range of natural ecological conditions, modes of resource management (including sedentary agro pastoral systems and migratory grazing systems - transhumance), and degree of prior human induced impact and current threats to ecosystems.

Project Funding

Two major donors (The AfDB and the GEF, with UNDP as the GEF Implementing Agency) have selected different executing agencies, but common implementation arrangements. The African Development Bank (AfDB) component is executed at regional level by the International Trypanotolerance Centre (ITC) based in the Gambia and at national level by the national governmental agencies responsible for livestock in the four project countries – Department of Livestock Services (Gambia), Direction Nationale de l'Elevage (Guinea), Direction National de l'Elevage et de la Pêche (Mali), Direction de l'Elevage (Senegal). The GEF component is executed by United Nations Office for Projects Services (UNOPS), which has overall responsibility for the realization of the project's GEF outcomes and is responsible for facilitation of operational procedures with UNDP, the national governmental agencies responsible for livestock in the four project countries – Department of Livestock Services (Gambia), Direction Nationale de l'Elevage (Guinea), Direction National de l'Elevage et de la Pêche (Mali), Direction de l'Elevage (Senegal) – and co-financing partners. ITC together with UNOPS, play a leading the role in the coordination of project implementation, with project Regional Coordination Unit (RCU) based at ITC in the Gambia.

The GEF and AfDB have their own project documents: the PRODOC for UNDP/GEF and the Project Appraisal Report for the AfDB. AfDB developed its 2005 project Appraisal Report on the basis of the GEF Approved Brief and Executing Summary from July 2004. Both documents departed from the same official documents that were produced to obtain the GEF Council approval of the project. They also have common objectives but reflect different approaches. The AfDB Appraisal report has 3 components while the UNDP/GEF PRODOC has 5 expected outcomes. An integrated logical framework was developed in consultation with key partners to facilitate and harmonize the implementation of the activities and communication with stakeholders. The integrated logical framework was approved by the Mid-Term Evaluation.

The six strategic interventions lines (Outcomes) identified in the integrated logical framework are as follow:

- 1- SIL1: Preservation of genetic characterization and improvement of production and productivity of ERL
- 2- SIL 2: Improvement of the valorization of the ERL and its products
- 3- SIL 3I: Sustainable management of ERL and its ecosystem
- 4- SIL 4: Legal, policy and institutional frameworks
- 5- SIL 5 :Cooperation, knowledge management, exchanges and coordination
- 6- SIL6 Project management.

Project Duration

The project was supposed to be implemented over ten-year period for the GEF component and 6 years period for the AfDB component. The PRODOC was signed in 29 June 2007 and the AfDB Grant and Loan agreements were respectively signed in 30 June 2006 and 16 October 2006. However, implementation of the project only started effectively in January 2008. The inception workshop was held in January 2009. The expected closing dates were end of 2016 for the GEF and end of 2013 for the AfDB. These closing dates have been revised to 30th June 2014 for AfDB Grant (RCU, Gambia, Guinea, 31st October 2014 for Senegal AfDB Loan, 31st December 2014 for Mali AfDB Loan and early 2015 for GEF component.

Project Management

The regional coordination unit for the project (RCU) is based in the Gambia hosted by ITC. The RCU works in close collaboration with ITC, UNOPS and the government's agencies to ensure effective implementation of the project. At national level, the project is managed through four national coordination units (UNC) and 12 site teams.

As for the project's co-financiers and partners, ITC, FAO, CIRDES, ILRI, they are also expected to provide advice on research, training needs and management of the project.

The International Livestock Research Institute (ILRI) had been selected in the PRODOC to be the main contractor for the research field work implementation. ILRI's HQ is in Kenya, with the coordinator for ILRI's project activities based in Mali. The collaboration between ILRI-UNDP-UNOPS is covered by a MoU.

The International Center for Livestock Research and Development in Subhumid Zones (CIRDES) had been identified in the AfDB appraisal report to be the partner for cryo-conservation activities. The partnership with CIRDES has not been established although several attempts were made during the project period.

In collaboration with FAO, the project has led the establishment of a sub-regional focal point for the management of AnGR in West and Central Africa. An electronic discussions platform DAD-NET-WCA moderated by the project has been established within this framework. In addition, a study on transhumance impact on the management of AnGR has been funded by FAO and its implementation being prepared under the leadership of ITC.

At national level, several partnership protocols have been signed with national institutions for the implementation of activities such as technical and institutional capacity building, environmental monitoring, Land use plans development, etc.

The project's first Regional Steering Committee meeting took place in February 2008 and the last one in late February 2014.

The MTE took place in two steps with an overall evaluation in mid-2011 and a complementary assessment in late 2011/early 2012. The MTE has endorsed the consolidated logframe and rated the overall project implementation successfully. However the MTE pointed out some conclusions and lessons learnt such as:

1. The formulation of the project has followed a long process, but the project is still relevant and responds to the needs and priorities of beneficiary communities and the AfDB and GEF objectives.
2. Implementation and performance are mainly satisfactory.
3. There is a good level of stakeholder participation and beneficiaries' ownership of the project, but a more precise analysis is required.
4. The efficiency of administrative, financial and accounting procedures has improved. Discrepancies in regional staff remuneration should be addressed.

5. The planning of ILRI activities lack tangible deliverables, although their contribution clearly adds value.
6. The monitoring and evaluation system defined at the inception of the project is functional. The computerized M&E system is not yet fully operational and monitoring the achievement of results is still quite limited.
7. The sustainability of the capacity built by the project needs to be enhanced.
8. The quality of human resources recruited to start the project is key to achieve project objectives.
9. There is need to fully take into account the changing socio-cultural intervention context and implementation modalities in order to set realistic objectives.
10. The project implementation approach through the “faire faire” requires a functional mechanism to monitor partner interventions so as to introduce timely corrective measures; it also takes some patience to negotiate and start the protocols.
11. A strong involvement of line Technical Departments in the supervision and technical monitoring of NCU activities will contribute to improving project performance and is also a token for sustaining achievements.
12. As concerns procurement of goods and services, the combined use of Bank procedures and those of national entities requires strengthening the quality of monitoring files to avoid any counter-performance.

The Terminal/Final evaluation will be conducted according to the guidance, rules and procedures established by AfDB, UNDP and GEF.

The objectives of the evaluation are to assess the achievement of project results, and to draw lessons that can both improve the sustainability of benefits from this project, and aid in the overall enhancement of UNDP/GEF and AfDB programming.

Given that the AfDB component of the project was supposed to close in late 2013, the project encountered some changes during the last six months in the staff leaving the project for other opportunities. The Deputy Regional Coordinator left last October 2013 and his position is currently filled by the Regional M&E Expert acting as Deputy Regional Coordinator and AfDB Component Regional Coordinator. The two M&E national experts from Mali and Guinea have left the project. The M&E national Expert from Mali has already been replaced.

EVALUATION APPROACH AND METHOD

The evaluators are expected to frame the evaluation effort using the criteria of **relevance, effectiveness, efficiency, coherence, beneficiaries’ participation/satisfaction, sustainability, and impact**. A set of questions covering each of these criteria have been drafted and are included with this TOR (Attachment C). The evaluators are expected to amend, complete and submit this matrix as part of an evaluation inception report, and shall include it as an annex to the final reports.

The evaluation must provide evidence-based information that is credible, reliable and useful. The evaluators are expected to follow a participatory and consultative approach ensuring close engagement with governments’ counterparts, in particular the GEF operational focal points, AfDB tasks managers, UNOPS, project team, UNDP GEF Technical Adviser based in the region and key stakeholders. The evaluators are expected to conduct a field mission to The Gambia, Guinea, Mali and Senegal including the

following project sites; (1) Kiang West, Niamina and Nianija in the Gambia , (2) Gaoual and Dinguiraye in Guinea (3) Tenghory, Ouassadou and Bandafassi in Senegal and (4) Madina Diassa and Sagabary in Mali. Interviews will be held with the following organizations and individuals at a minimum: UNDP lead country office (Mali), UNDP/GEF, AfDB task managers, Regional and national project coordinators, UNOPS, ITC, project team and project technical partners, steering committee members, key stakeholders (breeders associations, management committees of infrastructures and community land use plans or "POAS", womens groups, etc.) in the project sites.

The evaluators will review all relevant sources of information, such as the Appraisal report, the Prodoc, the basic documents (manual of procedures, M&E guide, communication plan, etc.), project reports – including Annual APR/PIR, annual work plans and budgets, project budget revisions, audit reports, supervision missions aide-memoires, midterm review, progress reports, GEF focal area tracking tools, project files, national strategic and legal documents, and any other materials that the evaluator considers useful for this evidence-based assessment. A list of documents that the project team will provide to the evaluator for review is included in the (Attachment B) of this Terms of Reference.

EVALUATION CRITERIA & RATINGS

An assessment of project performance will be carried out, based against expectations set out in the Project Logical Framework/Results Framework (see Annex A), which provides performance and impact indicators for project implementation along with their corresponding means of verification. The evaluation will at a minimum cover the criteria of **relevance, effectiveness, efficiency, coherence, beneficiaries' participation/satisfaction, sustainability and impact**. Ratings must be provided on the following performance criteria. The completed table must be included in the evaluation executive summary. The obligatory rating scales are included in Annex D.

Evaluation Ratings:	
1. Monitoring and Evaluation	<i>rating</i>
M&E design at entry	
M&E Plan Implementation	
Overall quality of M&E	
2. Execution and supervision	
Quality of UNDP Implementation (as GEF Agency, supervising the project)	
Quality of AfDB supervision	
Quality of UNOPS Execution – as the Executing Agency for GEF funds	
Quality of ITC Execution – as the Executing Agency for AfDB funds	
Overall quality of Implementation (i.e. supervision) / Execution	
3. Assessment of Outcomes	
Relevance	
Effectiveness	
Efficiency	
Coherence	
Overall Project Outcome Rating and rating per SIL below:	
1- SIL1: Preservation of genetic characterization and improvement of production and productivity of ERL	
2- SIL 2: Improvement of the valorization of the ERL and its products	

Evaluation Ratings:	
3- SIL 3I: Sustainable management of ERL and its ecosystem	
4- SIL 4: Legal, policy and institutional frameworks	
5- SIL 5 :Cooperation, knowledge management, exchanges and coordination	
6- SIL6 Project management.	
4. Sustainability	
Financial resources:	
Socio-political:	
Institutional framework and governance:	
Environmental :	
Gender mainstreaming	
Overall likelihood of sustainability:	

PROJECT FINANCE

The Evaluation will assess the key financial aspects of the project, including the extent of co-financing planned and realized. Project cost and funding data will be required, including annual expenditures. Variances between planned and actual expenditures will need to be assessed and explained. Results from recent financial audits, as available, should be taken into consideration. The evaluator(s) will receive assistance from the Project Team to obtain financial data in order to complete the financing table below, which will be included in the terminal evaluation reports.

Sources of financing	AfDB financing (mill. US\$)		GEF financing (mill. US\$)		Government (mill. US\$)		Other Partners (mill. US\$)		Total (mill. US\$)	
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	Actual	Actual
Grants										
Loans/ Concessions										
• In-kind support										
• Other										
Totals										

MAINSTREAMING

The evaluation will assess the extent to which the project was successfully mainstreamed with other UNDP/GEF and AfDB priorities, including poverty alleviation, improved governance, the prevention and recovery from natural disasters, and gender.

IMPACT

The evaluators will assess the extent to which the project is achieving impacts or progressing towards the achievement of impacts. Key findings that should be brought out in the evaluations include whether the project has demonstrated: a) verifiable improvements in ecological status, b) verifiable reductions in stress on ecological systems, and/or c) demonstrated progress towards these impact achievements.

CONCLUSIONS, RECOMMENDATIONS & LESSONS

The evaluation reports must include a chapter providing a set of **conclusions, recommendations** and **lessons**.

IMPLEMENTATION ARRANGEMENTS

The principal responsibility for managing this evaluation resides with the ITC/RCU and UNOPS (United Nations Organization for Project Services). Each of them will contract part of the evaluators' team and ensure the timely provision of per diems and travel arrangements within the countries for the evaluation team. The Project Team will be responsible for liaising with the Evaluators team to set up stakeholder interviews, arrange field visits, coordinate with the Government etc.

EVALUATION TIMEFRAME

The total duration of the evaluation will be 45 days according to the following plan:

Activity	Timing	Completion Date
Preparation	5 days	Second week of September 2014
Evaluation Mission	20 days	End of first week October 2014
Draft Evaluation Reports	15 days	Last week of October
Final Reports	5 days	2nd week of November

- This time table is subject to change following discussion between the two consultants and in accordance with PROGEBE management.

EVALUATION DELIVERABLES

The evaluation team is expected to deliver the following:

Deliverable	Content	Timing	Responsibilities
Inception Report	Evaluation team provides clarifications on timing and method, presents the agreed mission plan	No later than 2 weeks before the evaluation mission.	Evaluators submit to RCU CC to UNOPS, ITC & AfDB
Mission debriefing	Initial Findings	End of evaluation mission	To National and Regional Coordination Units
Draft Final Reports	Full reports (per AfDB and UNDP-GEF templates)	Within 2 weeks of the evaluation mission	Sent to RCU, NCU, UNOPS, ITC, AfDB, UNDP RTA, GEF OFPs
Final Reports*	Revised reports	Within 1 week of receiving comments on draft	Sent to RCU for submission to AfDB and uploading to UNDP ERC.

Presentation	Results of the Final Evaluation	Late May/early June	In the Gambia. to be organized by RCU
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*When submitting the final evaluation reports, the evaluator is required also to provide an 'audit trail', detailing how all received comments have (and have not) been addressed in the final evaluation reports.

The key products expected from this evaluation are comprehensive analytical Final Evaluation Reports in English and French that should, at least, follow minimum AfDB and GEF requirements as indicated in Attachments E and F.

The Final Evaluation Reports will be stand-alone document that substantiates its recommendations and conclusions. The reports will have to provide to the Regional Coordination Unit a complete and convincing evidence to support its findings/ratings.

The methodology used by the evaluation team should be presented in the Reports in details. It shall include information on:

- Documentation reviewed
- Interviews
- Field visits
- Questionnaires
- Participatory techniques and other approaches for the gathering and analysis of data

Section of the evaluation reports on lessons learnt and recommendation for replication and transfer of the experience shall be related mainly to:

- Post-project sustainability of the efforts both in terms of governance and in terms of environmental benefits.
- Capacity building.
- Achievements and challenges.

The Reports will include a table with evaluation criteria ratings and table of planned vs. actual project financial disbursements, and planned co-financing vs. actual-financing in this project.

The reports together with the annexes shall be presented in French and English in electronic form in MS Word format.

The reports and all further communication regarding the implementation of this assignment should be addressed to:

Dr. Abdelkader Bensada
PROGEBE Regional Coordinator

and

Mrs Ndeye Djigal Sall
PROGEBE Deputy Regional Coordinator/Acting AfDB Component Regional Coordinator

TEAM COMPOSITION

The evaluation team will be composed of 2 international bilingual consultants (one Anglophone and one francophone) with prior experience in evaluating similar projects. Experience with AfDB and GEF financed projects is an advantage. Experience in the area of sustainable use of livestock applying integrated environmental, social and economic aspect and in the implementation of comparable projects or programs. The evaluation team should have expertise and experience in one or more of the following the relevant fields:

- Biodiversity management
- Management and/or evaluation of GEF projects
- Management and/or evaluation of AfDB projects
- Result-based monitoring and evaluation.
- Rural development/financial and economic analysis.
- Livestock Sector
- West Africa.
- Sustainable community management of natural resources.

The evaluators selected should not have participated in the project preparation and/or implementation and should not have conflict of interest with project related activities.

The team will perform the following tasks:

1. Lead and manage the assignment.
2. Design the detailed scope and methodology for the assignment (including the methods for data collection an analysis).
3. Decide on the division of labor between the team.
4. Provide expert input to the analysis, assessment and methodology development as per the scope of the assignment describe above.
5. Communicate with the project regional and national coordinators and the stakeholders; to incorporate/react to comments.
6. Discuss discrepancies emerging between impressions and findings of the team of consultants and the key stakeholders (if relevant).
7. Draft related parts of the valuation Reports and finalize the whole Evaluation Reports.
8. Present the findings of the final evaluation at the Project Final Conference.

Required qualification of the Team

- 15 years minimum of professional experience in implementation and evaluation of development projects and programs in related subjects (Livestock, Environment and Rural Development).
- Advanced university degree in the appropriate development fields (livestock management, environments and rural development).
- Recent experience in the evaluation of international donors driven development project.
- Familiar with results based monitoring and evaluation approach.
- Experience in working with government officials, civil servants and technical public administration agencies and authorities is an asset.
- Experience in working with community-based projects and initiatives.
- Excellent knowledge of English and French.

EVALUATOR ETHICS

Evaluation consultants will be held to the highest ethical standards and if required to sign a Code of Conduct upon acceptance of the assignment.

ANNEX A: PROJECT LOGICAL FRAMEWORK

(to be added)

ANNEX B: LIST OF DOCUMENTS TO BE REVIEWED BY THE EVALUATORS

(to be added)

ANNEX C: EVALUATION QUESTIONS

This is a generic list, to be further detailed with more specific questions

Evaluative Criteria Questions	Indicators	Sources	Methodology
Relevance: How does the objectives of the project relate to the main objective of the AfDB sector and GEF focal area, and to the environment and development priorities at the local, regional and national levels?			
•	•	•	•
•	•	•	•
•	•	•	•
Effectiveness: To what extent have the expected outcomes and objectives of the project been achieved?			
•	•	•	•
•	•	•	•
•		•	•
Efficiency: Was the project implemented efficiently, in-line with international and national norms and standards?			
•	•	•	•
•	•	•	•
•	•	•	•
Sustainability: To what extent are there financial, institutional, social-economic, and/or environmental risks to sustaining long-term project results?			
•	•	•	•
•	•	•	•
•	•	•	•
Impact: Are there indications that the project has contributed to, or enabled progress toward, reduced environmental stress and/or improved ecological status?			
•	•	•	•
•	•	•	•

ANNEX D: RATING SCALES

<i>Ratings for Outcomes, Effectiveness, Efficiency, M&E, I&E Execution</i> 6: Highly Satisfactory (HS): no shortcomings 5: Satisfactory (S): minor shortcomings 4: Moderately Satisfactory (MS) 3: Moderately Unsatisfactory (MU): significant shortcomings 2: Unsatisfactory (U): major problems 1: Highly Unsatisfactory (HU): severe problems	<i>Sustainability ratings</i> 4. Likely (L): negligible risks to sustainability 3. Moderately Likely (ML): moderate risks 2. Moderately Unlikely (MU): significant risks 1. Unlikely (U): severe risks	<i>Relevance ratings</i> 2. Relevant (R) 1. Not relevant (NR) <i>Impact Ratings:</i> 3. Significant (S) 2. Minimal (M) 1. Negligible (N)
<i>Additional ratings where relevant:</i> Not Applicable (N/A) Unable to Assess (U/A)		

ANNEX E: UNDP-GEF EVALUATION REPORT OUTLINE⁷

- i.** Opening page:
 - Title of the project
 - AfDB, UNDP and GEF project ID#s.
 - Evaluation time frame and date of evaluation report
 - Region and countries included in the project
 - GEF Operational Program/Strategic Program
 - AfDB Sector/ Division
 - Implementing Partner and other project partners
 - Evaluation team members
 - Acknowledgements
- ii.** Executive Summary
 - Project Summary Table
 - Project Description (brief)
 - Evaluation Rating Table
 - Summary of conclusions, recommendations and lessons
- iii.** Acronyms and Abbreviations
- 1.** Introduction
 - Purpose of the evaluation
 - Scope & Methodology
 - Structure of the evaluation report
- 2.** Project description and development context
 - Project start and duration
 - Problems that the project sought to address
 - Immediate and development objectives of the project
 - Baseline Indicators established
 - Main stakeholders
 - Expected Results
- 3.** Findings
(In addition to a descriptive assessment, all criteria marked with (*) must be rated⁸)
- 3.1** Project Design / Formulation
 - Analysis of LFA/Results Framework (Project logic /strategy; Indicators)
 - Assumptions and Risks
 - Lessons from other relevant projects (e.g., same focal area) incorporated into project design
 - Planned stakeholder participation
 - Replication approach
 - Linkages between project and other interventions within the sector
 - Management arrangements
- 3.2** Project Implementation
 - Adaptive management (changes to the project design and project outputs during implementation)

⁷The Report length should not exceed 40 pages in total (not including annexes).

⁸ Using a six-point rating scale: 6: Highly Satisfactory, 5: Satisfactory, 4: Marginally Satisfactory, 3: Marginally Unsatisfactory, 2: Unsatisfactory and 1: Highly Unsatisfactory,

- Partnership arrangements (with relevant stakeholders involved in the country/region)
- Feedback from M&E activities used for adaptive management
- Project Finance
- Monitoring and evaluation: design at entry and implementation (*)
- AfDB/UNDP and Implementing Partner implementation / execution (*) coordination, and operational issues

3.3 Project Results

- Overall results (attainment of objectives) (*)
- Relevance(*)
- Effectiveness & Efficiency (*)
- Countries ownership
- Mainstreaming
- Sustainability (*)
- Impact

4. Conclusions, Recommendations & Lessons

- Corrective actions for the design, implementation, monitoring and evaluation of the project
- Actions to follow up or reinforce initial benefits from the project
- Proposals for future directions underlining main objectives
- Best and worst practices in addressing issues relating to relevance, performance and success

5. Annexes

- ToR
- Itinerary/Work program
- List of persons interviewed
- Summary of field visits
- List of documents reviewed
- Evaluation Question Matrix
- Questionnaire used and summary of results
- Evaluation Consultant Agreement Form

ANNEX F: AFDB PROJECT COMPLETION REPORT OUTLINE⁹

I. BASIC DATA

A. Report data

1. Date of report
2. Mission date

B. Responsible Bank Staff

1. Regional Director
2. Country Manager
3. Sector Director
4. Sector Manager
5. Task Manager
6. Alternate Task Manager
7. PCR Team Leader
8. PCR Team Members

C. Project data

1. Project Name
2. Project code
3. Project type
4. Country (ies)
5. Instrument number(s)
6. Sector
7. Environmental categorization (1-3)
8. Processing milestones – Bank approved financing only (add/delete rows depending on the number of financing sources)
9. Key Events (Bank approved financing only)
10. Disbursement and closing dates (Bank approved financing only)
11. Financing sources/instruments

D. Management review and comments

1. Country Manager
2. Sector Manager
3. Regional Director
4. Sector Director

II. Project performance assessment

A. Relevance

1. Relevance of project development objective
2. Relevance of project design
3. Lessons learned related to relevance

⁹ Detailed format and guidelines will be provided to the consultants

B. Effectiveness

1. Progress towards the project's development objective
2. Outcome reporting
3. Output reporting
4. Development Objective (DO) rating
5. Beneficiaries
6. Gender equality
7. Unanticipated or additional outcomes
8. Lessons learned related to effectiveness

C. Efficiency

1. Timeliness
2. Resource use efficiency
3. Cost benefit analysis
4. Implementation Progress
5. Lessons learned related to efficiency

D. Sustainability

1. Financial sustainability
2. Institutional sustainability and strengthening of capacities
3. Ownership and sustainability of partnerships
4. Environmental and social sustainability
5. Lessons learned related to sustainability

III. Performance of stakeholders

1. Bank performance
2. Borrower performance
3. Performance of other stakeholders

IV. Summary of key lessons learned and recommendations

1. Key lessons learned
2. Key recommendations (with particular emphasis on ensuring sustainability of project benefits)

V. Overall PCR rating**A. Relevance**

1. Relevance of project development objective
2. Relevance of project design

B. Effectiveness

1. Development Objective

C. Efficiency

1. Timeliness
2. Resource use efficiency
3. Cost-benefit analysis
4. Implementation Progress

D. Sustainability

1. Financial sustainability
2. Institutional sustainability and strengthening of capacities
3. Ownership and sustainability of partnerships
4. Environmental and social sustainability

E. Average of the dimension ratings**F. Overall project completion rating****VI. Acronyms and abbreviations**

Required attachment: Updated Implementation Progress and Results Report (IPR)¹⁰ – the date should be the same as the PCR mission.

¹⁰ The template of this report will be provided to the consultants.

ANNEX G: EVALUATION REPORTS CLEARANCE FORM

Evaluation Report Reviewed and Cleared by

UNDP Country Office

Name: _____

Signature: _____ Date: _____

UNDP GEF RTA

Name: _____

Signature: _____ Date: _____

Evaluation Report Reviewed and Cleared by

ITC Director General

Name: _____

Signature: _____ Date: _____

AfDB Task Manager

Name: _____

Signature: _____ Date: _____

Annex 2. Itinerary/work program

Global programme - Final Evaluation PROGEBE (14 September - 3 October 2014)

Date	Country	Activity
Sunday 14 th September	The Gambia	Arrival of the consultants
Monday 15 th September <ul style="list-style-type: none"> 09h – 12h 12h – 13h 15h -17h 		Presentation of the updated harmonized detailed methodology (by the consultants) and working session with RCU Visit to the Ministries of Livestock & Finance Meeting with ITC
Tuesday 16 th – Wednesday 17 th September		Field visit to the sites and interaction with local stakeholders
Thursday 18 th September	Senegal	Departure to Kolda and visit at CRZ and Sare Yoba Market Meeting with national partners (Bamtaare, IREF, IDSV, CSE, etc.)
Friday 19 th – Sunday 21 st September		Working session with NCU Field visit to the sites and interaction with local stakeholders
Monday 22 th September		Debriefing with the national team Return to Banjul
Tuesday 23 rd September <ul style="list-style-type: none"> 9h -11 h 12h-14h 16h -17h 	The Gambia	Working session with NCU Meeting with national partners (GVA, NEA, DOA, MOFEN, DCD, SGP, UNDP, etc.) Debriefing with the national team
Wednesday 24 th September		Departure to Mali
Thursday 25 th – Saturday 27 th September	Mali	Working session with NCU Field visit to the sites and interaction with local stakeholders
Sunday 28 th September		Day off
Monday 29 th September <ul style="list-style-type: none"> 9h -10h 11h -12h 12h -14h 15h – 17h 17h – 18h 		Visit to UNDP Visit to AfDB Visit to the Ministries of Livestock & Finance Meeting with national partners (CFPE, DNACPN, DNEF, LCV, EIR, etc.) Debriefing with the national team Arrival of Guinea project team
Tuesday 30 th September		Working session with Guinea project team Departure to Dakar and Guinea
Wednesday 1 st October <ul style="list-style-type: none"> 9h -10h 11h -12h 12h -14h Afternoon 	Senegal	Visit to UNOPS Visit to AfDB ??? Visit to the Ministries of Livestock & Finance
Thursday 2 nd October		Preparation of final debriefing
Friday 3 rd October		Final debriefing with RCU, UNOPS and AfDB: Presentation of

		preliminary findings End of Field Mission of FE consultancy, and Departure of the consultants
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Interaction with International partners (online or over the phone) any time during the mission: ILRI; CIRDES; FAO; UNDP-GEF; AfDB head office.

Timetable for visit of Evaluation team in The Gambia

Day/time	Project Site	Activity	Participants
Monday, 15 th Sept ➤ 12- 13hrs	RCU	Visit to Ministries	RCU & Famara
Tues, 16 th Sept 08.00hr: Depart RCU for Kiang West:	9.30: Arrive Kiang West	Visits: PROGEBE- Site office, ITC station, Multiplier herd owner, Individual milk vendor, CBO with SGP (beekeeping), Small Ruminant owner (adoption of good practices), Livestock watering point (borehole). Night stop Jenoi	Consultants, RCU, NC, NEME
Wed. 17 th Sept. ➤ 08.00hr: Depart Jenoi for Nianija	9.30 – 10.00 am: Arrive Nianija (ferry crossing factor)	Visits: Mini dairy (Njau), Site Office (Chamen), Call on Head Chief, Individual (woman) adoption of good practices (pasture, small ruminants, draught animals = Ceesaykunda) Community pasture field (Palelle), Community forest & SGP(Wellingara), Multi-nutrient block making by Women group (Bati-Jaha) Livestock market committee (Nyanga-Bantang) End of visit, Return to Night stop at Jenoi	idem

PROJET DE PROGRAMME DE VISITE POUR LA MISSION D’EVALUATION FINALE AU SENEGAL

Jeudi 18 septembre	Activités
- 09h 30	- Arrivée à Kolda
- 10h – 12h	- Visite marché de Saré Yoba et entretien avec le coges et la municipalité
- 15h – 17h	- Visite du CRZ et entretien avec la coopérative
Vendredi 19 septembre	Activité
- 9h – 12h	- Entretien avec les partenaires: ISRA, Bamtaaré, SREL, IREF
- 15h – 18h	- Entretien avec L’UNC
Samedi 20 septembre	Activité
- 6h 30	- Départ pour Bignona
- 9h – 9h 30	- Entretien avec le maire de Tenghori
- 9h 30	- Départ pour Tandième

- 10h - 12h	- Visite d'exploitation (troupeau, géniteur amélioré et ses produits) - Entretien avec comité de vaccination - Entretien sur le POAS - Entretien avec relais en environnement
- 13h	- Visite marché à bétail de Niamone et - Entretien avec le maire de Niamone et les marchands de bétails
- 14h- 15h	- Visite de la mini laiterie et entretien avec la fédération des GIE des femmes
- 15h - 15h 30	- Entretien avec les bouchers
- 15h 30	- Retour à Kolda
Dimanche 20 septembre	Activité
9h à 13h	Entretiens à l'UNC pour complément d'information

PROGRAMME DE LA MISSION AU MALI (25 au 01 Octobre 2014)

Date/Horaires	Activité (s)
Jeudi 25	
10h00 11H00-12h00 12H00-13h30 15h00-16h00 16h00-17H30	Arrivée à l'aéroport de Bamako Visite de courtoisie au MDR Visite de courtoisie au PNUD Visite de courtoisie à la banque Rencontre avec les partenaires techniques nationaux (IER, LCV, DNEF, DNACPN, CFPE) Coucher à Bamako
Vendredi 26	
09 h 30 10 h 30 -13h 00 13 h -14h 15 h – 17 h	Arrivée à Bougouni Séance de travail avec les représentant des deux sites non-visités Pause déjeuner Séance de travail avec l'UCN <ul style="list-style-type: none"> - Visite de la mini laiterie réalisée par le PROGEBE ; - Echanges avec les parties prenantes (coopératives des productrices de lait) Coucher à Bougouni
Samedi 27	
07 h -09 h 30 09 h 30 - 10h 00 10 h – 12 h 00 12 h – 13 h 13h - 14h 14h – 15 h 16-18h	Voyage Bougouni - Yorobougoula Visite de courtoisie aux autorités locales (Maire); Séance de travail avec <ul style="list-style-type: none"> • les agro éleveurs détenteurs des troupeaux de multiplication • les parties prenantes de la convention locale de gestion des ressources naturelles : Maire, agro éleveurs, coopératives des femmes transformatrices de produits forestiers Visites d'un troupeau de multiplication et d'un champ de culture fourragère Pause déjeuner Séance avec l'équipe de site. Voyage Yorobougoula - Bougouni.

	Coucher a Bougouni
Dimanche 28	Voyage Bougouni – Bamako : Repos - coucher à Bamako
Lundi 29	09:00 à 14 :00 séance de travail avec l'équipe du PROGEBE-Guinée
Mardi 30	0830-0933 : Débriefing et départ pour la Guinée
Mercredi 01 Octobre	Départ pour Dakar a 1400

Annex 3. List of persons met/interviewed

Annex 3.1. List of persons encountered in The Gambia

PROGEBE-RCU staff

1. Dr Abdelkader BENSADA, Regional Coordinator
2. Mrs Ndeye Djigal SALL, Acting Regional Coordinator –AfDB Component, Deputy Regional Coordinator, and Regional Monitoring and Evaluation Expert
3. Mr Alassane DIALLO, Regional Information Management and Communication Expert (RICE)
4. Dr Ibrahima Mara, Regional Capacity Building and Institutional Development Expert (RECBID).
5. Mr Alhagie Jabang, Regional Finance Officer
6. Mrs Rokiatu Cole Cham, Administrative and Procurement Associate

International Trypanotolerance Centre (ITC)

1. Mr Ansumana K Jarju, Acting Director General. akjarja2013@gmail.com
2. Dr Arss Secka, Epidemiologist, Research Scientist. arsssecka@yahoo.com
3. Mr. Olawale Olaniyan, Research Volunteer. ofolaniyan@hotmail.com
4. Mr Masseye Seye, Finance/administration Consultant. seyemasseye@gmail.com
5. Ansumana Ceesay, Senior Technician
6. Mr Lamin Drammeh, Senior Accountant/Acting Head of Finance. lamin.drammeh2@hotmail.com>

PROGEBE-Gambia NCU Staff

1. Dr. Famara Bulli Sanyang – National Coordinator
2. Momodou S.W. Sowe – National expert Monitoring & evaluation
3. Momodou Lamin Ceesay – National expert Natural resources management
4. Sait Touray – Accountant
5. Mrs. Haddy M. O. Faal – Secretary
6. Dr. Sulayman Sonko – national expert animal production (left job since October 2013)
7. Sarjo Marenah – National expert finance and Administration (left job since June 2014)
8. Mr Nerry Coor, Site Coordinator, Kiang West
9. Mr Lamin Maron, animator

Honourable Mr Solomon J.E. Owens, Minister of Agriculture, Banjul

Mr Lamin Camara, Deputy Permanent Secretary, Ministry of Finance and Economic Affairs, in charge of International Cooperation and Resource Mobilization, and member of the national and regional Steering Committee.

Representatives of Partner Institutions

1. Dr. Badara Loum. Gambia veterinary Association (GVA)
2. Sambou Nget. Department of Forestry
3. Ebrima Sawaneh. Department of Community Development
4. Emmanuel Mendy. Department of Livestock services
5. Ebrima Cham. Gambia Livestock marketing agency

Evaluation team visit to Nianija (Primary project site) – 17th September 2014

Livestock Market - Nyanga Bantang village

1. Dam Sallah – President
2. Omar Mangane – Collector
3. Edirissa Njie –Assistant Secretary
4. Ebrima – Njie – Livestock dealer
5. Ebou Gaye – Livestock dealer
6. Salieu Gaye – livestock dealer
7. Mat Mbaye – Livestock dealer
- 8.
9. Matar Secka – Livestock dealer
10. Samba Njie – livestock dealer
11. Sara Kumba Jallow – Auditor, Livestock dealer
12. Sadibou Dicko – Butcher
13. Sagar Njie – Secretary
14. Yada Jallow – Livestock dealer

Mini-Dairy at Njau village

1. Kodeh Sey – Milk vendor, Executive Management Committee member
2. Maari Jallow – milk vendor, Executive management committee member
3. Sarjo leigh – milk vendor
4. Omar ceesay – Village head Njau Sawalo, Executive committee member
5. Biran Jallow – herd owner, milk supplier to dairy plant
6. Demba Jallow – herd owner, milk supplier to dairy plant
7. Alhagie Ebou Jobe – Chairman Village development committee, Executive committee member
8. Modou Secka – Executive committee member
9. Ma Sillah Gaye – Village head Njau Sykunda
10. Jai Ture – Milk processor
11. Ancha Mbaye – executive committee member, processor and plant manageress
12. Kumba Ndow – milk processor
13. Mam Secka – Executive committee member, President of "Wayal"(milk vendor association)
14. Sala Bah – milk vendor
15. Samba Ceesay – Watchman of the plant complex
16. Jewo Loum – milk vendor
17. Delam Bah – milk vendor
18. N'jammeh Jallow – milk vendor

PROGEBE-Gambia Nianija Site Office Staff

1. Mamud Njie – Site Coordinator
2. Sering Sowe – Animal Production Technician
3. Bakary Jarju – NRM Technician
4. Kumba Mbacke – Cleaner
5. Kara Njie – Security
6. Mrs. Fatou Cham – Former Community Animator (service ended March 2014)
7. Mrs. Yassin York – Former Community Animator (Service ended march 2014)

Community pasture at Palele village

1. Gadri Jallow
2. Sirajo Jallow
3. Abdoulie Jallow
4. Yassin Jawara
5. Demo Cham
6. Oumu Suwareh
7. Habbi Bah
8. Jabou Suwareh
9. Alieu Suwareh
10. Bailo Suwareh
11. Musa Jallow
12. Laila Bah
13. Jahe Jallow
14. Hawa Jallow
15. Ousman Jallow
16. Awa Barry
17. Abdoulie Jallow

Group Jubo Association (Making mineral lick & multi-nutrient block) at Baati Jaha village

1. Aji Kani Touray
2. Fatim Gay
3. Ndey Nyang
4. Yassin Cham
5. Sohna Gaye
6. Kumba Noho
7. Yama Ceesay
8. Haddy Ceesay
9. Fana Ceesay
10. Boidoh Jallow
11. Ndey Ceesay
12. Fatou Secka
13. Amie Ceesay
14. Ndey Jagne
15. Kadija Jallow
16. Modou Chareh Sowe
17. Salif Ceesay
18. Mam Tuti Ceesay
19. Mbombbeh Ceesay
20. Hulay Jallow
21. Hadam Cham
22. Saiye Mbaye
23. Rohy Ceesay
24. Jai Mbage
25. Satou Ceesay

Chamen Village (Office of district chief)

1. Alhagie Alassan David Cham – District Chief, Member of the Site Level Steering Committee
2. Alhagie Adama Cham – Chairman Site Level Steering Committee
3. Mrs. Amie Bana Cham – Member of Site level steering Committee
4. Buba Ceesay – Herd owner
5. Abdul Cham – Village elder

Community Based Organizations (CBOs) in Nianija Project Site

1. Ainaabe Association – Livestock Dealers Association
2. Fendobeh Kedam Nianija – Milk vendors Association of Nianija District
3. Nianija Kawral – District Development Association
4. Saloum Wayal – Milk vendors association of Upper Saloum District

PERSONS MET AT KIANG WEST PROJECT SITE – 16TH SEPTEMBER 2014**Kumu Doku Kaffo (bee keeping association) at Manduar Village**

Sn	Name	Sex	status
1	Khaddy Darboe	F	Committee member
2	Aminata Camara	F	Member
3	Jainaba Camara	F	Member
4	Mama sally Sanyang	F	Villager (member of milk vendors group)
5	Ebrima Bob Ceesay	M	Secretary
6	Khaddy Butay Darboe	F	President
7	Kawsu Sanyang	M	Village head
8	Oumar Bah	M	Villager
9	Samba Jallow	M	Villager
10	Momodou lamin Sanyang	M	Committee member
11	Futanko Jammeh	M	Committee Member
12	Mbosseh Darboe	F	Committee Member
13	Afang Sanna sanyang	M	Committee Member
14	BakaryNding Sanyang	M	Villager

Koli Kunda watering facility (solar powered borehole)

Sn	Name	Sex	Village	Status
1	Fa Kebba Njie	M	Koli Kunda	Vice president
2	Ablie sowe	M	Jammaru	Treasurer
3	Momodou Jallow	M	Koli Kunda	Secretary
4	Sallinding Njie	F	Koli Kunda	Committee member
5	Afang Mbemba Njie	M	Koli kunda	Forest committee
6	Fa Kebba Njie	M	Koli Kunda	Villager
7	Sainey Manneh	M	Jammaru	Herd owner
8	Yorro Baldeh	M	Koli Kunda	Son of herd owner
9	Yankuba Njie	M	Koli Kunda	Rep of Alkalo
10	Foday Kandeh	M	Koli Kunda	Son of herd owner
11	Solo Njie	M	Koli Kunda	Small ruminant owner

PROGEBE Site staff at Kiang West (Keneba Research Station)

Sn	Name	Sex	Designation
1	Nerry Corr	M	Site coordinator
2	Lamin Marong	M	Livestock Technician
3	Malang Nyassi	M	NRM Technician
4	Adama Sanyang	F	Cleaner
5	Momodou Kolley	M	Animator (service ended march 2014)

ITC Staff met at the nucleus breeding herds

Sn	Name	Sex	Designation
1	Sidat Trawally	M	Acting Station manager
2	Ansumana Jarjou	M	Driver field assistant
3	Ebrima Kolley	M	Field assistant
4	Demba Njado	M	Chief herdsman
5	Fabakary Ceesay	M	Herdsman
6	Musa Jallow	M	Herdsman
7	Alieu Saidy	M	Herdsman
8	Jamanty Ceesay	M	Herdsman
9	Kebba Jallow	M	Herdsman

List of ITC Staff met on station

Sn	Name	Sex	Designation
1	Momodou Jeng	M	Geneticist
2	Tijan Tamba	M	Field assistant small ruminants
3	Kulamang Sillah	M	Small ruminant herdsman
4	Alfusainey Tamba	M	Small ruminant herdsma
5	Numo Minteh	M	Small ruminant herdsman

Individual milk vendor at Keneba : Adama Sowe (Female)

Multiplier herd owner at Bajana Village: Kebba Njie (Male)

Individual Small ruminant owner at Sankandi: Fatou Bonna Camara (Female)

List of CBOs in Kiang West Site supported by PROGEBE

Sn	Name	Activity
1	Kiang West Kumu Doku Kaffo	Beekeeping and biodiversity
2	PELLITAL (Livestock Dealers Association)	Livestock trading
3	SIPPOBEH(Milk vendors Association)	Milk and milk product selling
4	Domang Domang Kaffo	Small ruminant breeding & fattening
5	Kiang West Doola Kaffo	Biodiversity & ecosystem conservation & climate change adaptation for sustainable livelihoods

List of CBOs in Niamina East (project 3rd site; not visited)

1. Lego Kossam' (Milk vendors)
2. Yafal (Fatteners)
3. Pasali (Livestock Dealers Association)
4. Juloolu (Fattening & petty trading)
5. Fagaru (Protect Environment)
6. Beyang Ni Dandang (Livestock owners & environment)

Annex 3.2 List of persons from Guinea met in Bamako, Mali

PROGEBE-Guinea NCU Staff

1. Dr Boubacar DIALLO, Coordonateur National, PROGEBE – Guinée-UNC, s/c Direction nationale de l’Elevage, BP-559, Conakry, Guinée. Email: BoubacarD@unops.org; Tel: +224 60 29 43 28 / 62 91 24 11
2. Mr Mamadou Oury Hérico DIALLO, Responsable Administratif et Financier (RAF)
3. Dr Gilbert Cewonmin BAMIS, Expert National en Productions Animales (ENPA), email: gilbert.bamis@gmail.com, Tel: +224 622348608
4. Mr Boubacar CAMARA, Expert National en Gestion des Ressources Naturelles (ENGRN), Email: bappacaro@yahoo.fr; Tel.: +224 601545370

Annex 3.3. List of persons met in Mali

PROGEBE-Mali NCU Staff

1. Dr Ousmane TRAORE, National Coordinator
2. Mr. Djibril Traoré, National Expert in Natural Resources Management
3. Mr. Sidibé Morodian, Head of Administration and Finance
4. Mr. Ibrahima Traoré, National Expert in Animal Productions, Mali
5. Mr. Cheick Abdoul Kader Sissoko, • National Experts in Monitoring and Evaluation
6. Mr Zoumana Kanté, Chef du Site de Tousseguela
7. Mr Lansana TRAORE, Chef du site de Manankoro
8. Mr Ibrahim TRAORE, Chef du Site de Sagabary
9. Cheick O. KANTE Chef du Site de Madina Diassa

Ministère du Développement Rural, Bamako

1. Mr. Daniel Simeon KELEMA, Secrétaire Général, Ministère du Développement Rural
2. Dr Saïdou Tembely, Conseiller Technique Chargé du PROGEBE

Direction Générale de la Dette Publique, Ministère de l'Economie et des Finances, Bamako

1. Mr Souleymane DIARRA, Sous-Directeur des Etudes de la Direction de Dettes
2. Mr Diya Cissé, Sous-Directeur des Opérations, chargé du suivi des projets

AfDB Office

Mr Abdoulaye DJIRO, Agronome principale, BAD-Mali. (a.djiro@afdb.org)

PNUD, Bamako

Mme Aïda MBo-Keita,

Assistant au Représentant Résident, Conseiller au Programme Environnement, PNUD, Bamako, Mali, Email : aida.mbo-keita@undp.org

Stakeholders (representatives of Sagabary, Tousseguela sites

1. Président de l'Association des Producteurs de Petits Ruminant
2. Mr Konaté, Maire Adjoint, Commune de Sibirila
3. Mr. Sidiki Traoré, Producteur de bovin N'dama, Commune de Fakola (Site de Tousséguéla)
4. Conseiller de la commune de Sagabary
5. Trésorier pour Association des produits forestiers
6. Maire Adjoint de Garalo

Yorobougoula, mairie de Gouanan

1. Mr Seydou Diakité, Maire
2. Maire adjoint de Garalo
3. Secrétaire General Mairie de la Commune
4. Animateur 1
5. Chef du comité de surveillance de protection des forêts (depuis 5 ans)
6. Forêt communautaire – trésorier du comité de gestion
7. Technicien des Eaux et Forêts.
8. Mr Mousa Diallo, Président de la Plateforme d'Innovation de Yorobougou

9. Mme Kadiatou Diallo, Mme Kadiatou Diallo, Chargée des relations avec les partenaires Plateforme d'innovation de Yorobougoula
10. Mr Issa Traoré
11. Sidiki Sangaré

Mini-Laiterie de Bougouni

17 men and 12 women, including:

1. Mr Mamoudou Cissé, Président de la Coopérative, mini-laiterie de Bougouni
2. Mme Oumy Sy, membre de la Coopérative, mini-laiterie de Bougouni
3. Mr Alassane Diallo Kane, Imam de Bougouni
4. Mr Dogo Diakité, Chef de village de Bougouni
5. Mme Coumaré Dieynaba Coulibaly, Enseignante

Partners

1. Dr Lassina Doumbia, Directeur, Centre de Conservation, Multiplication et Diffusion du BRE de Madina Diassa (CCMD-BRE).Email: Lassi05@yahoo.fr
2. Dr Nakani Diallo, Formatrice, Centre de Formation Pratique en Elevage (CFPE). Email: Nakanidiallo3@yahoo.fr
3. Mr Famoussa Bagayogo, Direction Nationale de l'Assainissement du Contrôle des Pollutions et des Nuisances (DNACPN).Email: bagayokofamoussa@yahoo.fr
4. Dr Zacharia Bokoum, Laboratoire Central Vétérinaire (LCV). Email: Bocoun56@yahoo.fr
5. Dr Lassine Coulibaly, Institut d'Economie Rural (IER). Email: Sina_coulibaly@yahoo.fr
6. Mr Niazié Mallet, Direction Nationale des Eaux et Forêts (DNEF). Email: Mallet80dnf@yahoo.fr

Annex 3.4. List of persons met in Senegal

Marche à bétail de Touba Mouride - Comité de gestion (COGES)

1. Mr Samba Kâ, Président, +221 77 320 72 65
2. Mr Moussa Bâ, Premier Vice-Président
3. Mr Mayacor Gueye, Vice-Président
4. Mr AronaBA, Trésorier, +221 77 362 91 63
5. Mr Kalidou Bâ, secrétaire, +221 77 357 94 57
6. Mr mass Mbow, membre du Comité de Suivi, +221 77 190 49 49
7. Mr Samba Bâ, adjoint au Maire

CRZ/ISRA, Kolda

1. Dr Mayecor Diouf, Directeur, +221 77 636 20 11, dioufmy@yahoo.fr
2. Mr. Ansoumana Diokou, +221 77 415 46 74, adiokou22@yahoo.fr
3. Dr Younouss Camara, Chef du Service Productions et Santé Animales +221 77 535 91 22, dr.camara@yahoo.fr
4. Mr. Momar Beye, Chef de l'Administration, +221 77 420 17 11, momarb@hotmail.com
5. Mr. Mamadou Baldé, Secrétaire Coopérative Ndama, +221 77 429 61 24

Direction des Services Vétérinaires'

1. Dr Ndeye Khady Fall Gueye, Chef du Service Régional de l'Elevage de Kolda, +221 33 996 12 60. +221 77 574 56 81. ndeyekhadyf@yahoo.fr

Inspection Régionale des Eaux et Forêts (IREF)

2. Mr Babacar Sall, Adjoint, IREF, +221 77 377 64 99, babacarsall@gmail.com

Base d'Appui aux Méthodes et Techniques pour l'Agriculture, les autres Activités Rurales et l'Environnement (BAMTAARE)

(Siege UNC PROGEBE-Sénégal, Kolda)

3. Mr. Goule Gueye, Directeur, +221 76 529 21 03, goulegueye@sodefitex.sn
4. Dr Massirin Savané, Responsable Service Elevage et Productions Animales, +221 77 634 20 69, massirin.savane@sodefitex.sn
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Foirail/Marché à bétail de Bignona

1. Mr Mamadou Sow, Président du Foirail de Bignona
2. Mr Oumar Kanté, Président des bouchers
3. Mr Ousmane Diallo, Vice-Président du Foirail de Bignona
4. Mr Ibrahima Bâ, Boucher
5. Mr Demba Diallo, Membre du Foirail de Bignona
6. Mr Mamadou Lamine Diémé, Conseiller Municipal de Niamone, Commission Environnement, Agriculture et Elevage
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National Stakeholders (representing members of National Steering Committee)

1. Mme Diop, Ministère des Finances, Coordination des Investissements Publics
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6. Dr Alou Fall DG de l'ISRA.

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