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INSTITUT SENEGALAIS DE RECHERCHES AGRICOLES
NATURAL RESOURCES-BASED AGRICULTURAL RESEARCH PROJECT
(NRBAR)

SECOND BIENNIAL REPORT
FOR THE PERIOD 21 JULY, 1992 TO 31 DECEMBER, 1993

in collaboration with
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and
The Consortium for International Development (CID)
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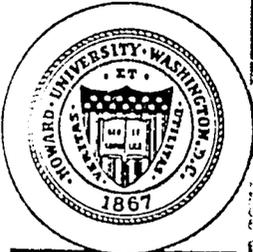
United States Agency for International Development



Institut Senegalais de Recherche Agricole



Consortium for International Development



Howard University

A COOPERATIVE PROJECT OF:



Tennessee State University



Oregon State University



Development Alternatives, Inc.

- Utah State University
- Texas Tech University
- Katholieke Universiteit Leuven, Belgium

- Royal Tropical Institute, Netherlands
- Institut Francais de Recherche Scientifique Pour le Developpement en Cooperation, France
- The Natural Resources Institute, England

SUMMARY

This report summarises progress from the inception of the project to 31 December, 1993, according to the seven project resource components and the four major project programs.

PROJECT RESOURCE COMPONENTS

I. RESEARCH PROGRAM SUPPORT: policies and protocols for the collaborative research program have been developed, and have been put into operation. ISRA has awarded Collaborative Research Grants to three teams consisting of both ISRA researchers and non-governmental organisations to undertake natural resources technology research. Policies and protocols for the ISRA Grants for Research in Senegal have been developed, and have been put into operation. ISRA has awarded grants to four of its research teams to develop specific natural resources technologies. ISRA is presently drafting proposals for the 1994 Grants programs.

II. SUPPORT FOR ISRA'S NATURAL RESOURCES PROGRAM: these funds are expected to be released directly to ISRA by USAID in 1995 or 1996 following ISRA's financial certification. For 1994, in view of the need to increase the level of natural resources management research activities as soon as possible, a method of temporarily increasing the level of funds in the Grants for Research in Senegal category has been developed and implemented. The project's input into the process of financial certification has begun, following the arrival of the NRBAR financial advisor in June, 1993.

III. LINKAGES TO INTERNATIONAL RESEARCH INSTITUTIONS: these funds are expected to be released directly to ISRA by USAID in 1995 or 1996 following ISRA's financial certification. ISRA is presently drafting proposals for appropriate visits and for developing institutional linkage structures.

IV. PERSONNEL: all long-term ISRA and CID personnel have been recruited and assigned. CID and ISRA personnel have established rapport and have formed productive collaborative teams in order to implement project activities. Counterparts have been officially nominated for CID personnel. Communications and rapport between the CID/ISRA team and USAID have also been well established. Five short-term consultants (TDYs) have been employed to date; these have played crucial roles in developing the procedures manual, the long-term training program, the monitoring and evaluation plan, a plan to measure the impact of ISRA's research activities, and in establishing an efficient NRBAR grants management system.

V. TRAINING: ISRA has developed a life-of-project training plan for NRBAR long-term participant trainees, which details criteria for candidate selection, training policies, description of the selection process, an implementation plan with budget, and detailed dossiers for each candidate for M.S. and Ph.D. training. USAID has approved the plan, 4 Ph.D. candidates have begun their studies at U.S. universities, and 1 Ph.D. and 4 M.S. candidates are presently being prepared for, and are being placed at, U.S. universities. In addition, a revised long-term training program is being developed.

There have been eight Short-Term Training events: (1) the January, 1993, launching workshop which successfully brought together all potential collaborators for two days to discuss the first annual workplan, (2) the May, 1993, training meetings between candidates for long-term training and NRBAR personel which successfully established the basis for implementing the training plan, (3) the June, 1993, grants committee workshop which successfully finalised the grants protocols and selected grantees for 1993/94, (4) the 30th June, 1993, public exposition of ISRA's research results, which included a successful display of ISRA's work on natural resources technologies, (5) the September national research coordinating meetings which provided the basis for the 1994 ISRA research plan, (6) the October visit by the ISRA Scientific Director and the ISRA economics research coordinator to the International Centre for National Agricultural Research Systems (ISNAR), in order to establish a program of cooperation in the research planning area, (7) the November financial workshop, which achieved a concensus on ISRA's financial management plan, and (8) the December meeting of the ISRA Council of Administrators, which provided the basis for the 1994 administrative plan. ISRA has successfully negotiated with two Senegalese educational institutions (ENSA and IST) for implementation of the women's B.S. program; ten candidates have been selected and are awaiting the transfer of funds.

VI. ISRA DIRECT SUPPORT: ISRA continues to provide the necessary physical support, and the necessary staff time and resources, to successfully implement the project.

VII. USAID DIRECT SUPPORT: virtually all furniture and equipment has been supplied, the technology inventory study and the first stage of the financial management study have been successfully implemented, and all USAID project staff are in place.

PROJECT PROGRAMS

RESEARCH PLANNING. The following programs have been agreed upon and are presently being successfully implemented: the measurement of research impact, a study of strategic research priorities, the development and institutionalisation of socio-economic analyses, the INFORM research management information system, the management of research stations, human resources planning, and monitoring and evaluation.

NATURAL RESOURCES MANAGEMENT PROGRAMS. The policies and protocols for Grants to ISRA researchers were successfully established and are being implemented. Programs for drafting a natural resources management strategic plan and for developing a geographical information system were agreed upon and are being implemented.

OUTREACH. The policies and protocols for the Collaborative Research Grants program were successfully established and are being implemented through grants which have been given by ISRA to three non-governmental organisations and collaborating ISRA research groups. A new group of NGOs is expected to receive grants in 1994. Programs for public awareness will result in strategies for highlighting ISRA and natural resources management issues. A gender study will also be implemented.

FINANCIAL MANAGEMENT. This program has been successfully initiated, in association with Ernst and Young. ISRA completed their proposed Action Plan for Phase II of financial management improvements, an ISRA-wide consensus was achieved on ISRA's financial management plan, and the 1992 external audit report was completed and submitted to ISRA.

PROJECT SUPPORT. All facets of the project support program are being successfully implemented, including meetings' schedules and reporting exercises, with highest priority being placed on those activities which directly complement institutionalisation of the four programmatic thrusts. ISRA, CID and USAID staff closely collaborated in the production of the 1993 Workplan and the Procedures Manual (approved by USAID), and the Monitoring and Evaluation Plan is presently being reviewed. ISRA's long-term training plan was also approved by USAID. Estimated project expenditures to 31 December, 1993, of \$2,153,961 equivalent to 14% of the \$15,617,714 contract budget, are at approximately the expected level.

No substantial difficulties were encountered during this initial period of the project. Some delays in implementation were encountered due to the replacement of the ISRA Scientific Director, travel restrictions and unavailability of some team members during the 1993 national elections period, the continuing travel restrictions in the Casamance, the eight-months delay in receiving NRBAR computers, the additional time and effort needed to institutionalise NRBAR administrative structures and programs within ISRA from the outset, and the time needed for ISRA NRBAR team members to develop the administrative processes necessary to take full advantage of opportunities provided by the project.

Major scheduled activities during January to June, 1994 include: logistical and programmatic implementation of the seven 1993 NRBAR grants projects, selection and initial implementation of five new collaborative research grants and of five new Grants for ISRA Researchers, a feasibility study of Geographical Information Systems, development of an outline Natural Resources Management Research Strategy, implementation of the NRBAR long-term participant trainee and B.S. level training for women programs, a program for the management of research stations, research impact and priorities studies, a study of ISRA's micro-economics needs, an ISRA public awareness study, a gender study, development of a database on ISRA's collaborators, implementation of Phase II of the ISRA Financial Management Study, and 1993 and 1994 accounts assistance.

In conclusion, excellent rapport and collaborative relationships have been forged between ISRA, CID and USAID staff in the process of implementing the project to date. Project-specific needs such as the monitoring and evaluation plan and the procedures manual have been addressed within the context of developing and sustaining the institutional capacity of ISRA to undertake these tasks. All major tasks of the 1993 summary project schedule have been or are nearing successful completion; minor delays in some activities will be resolved in the coming months.

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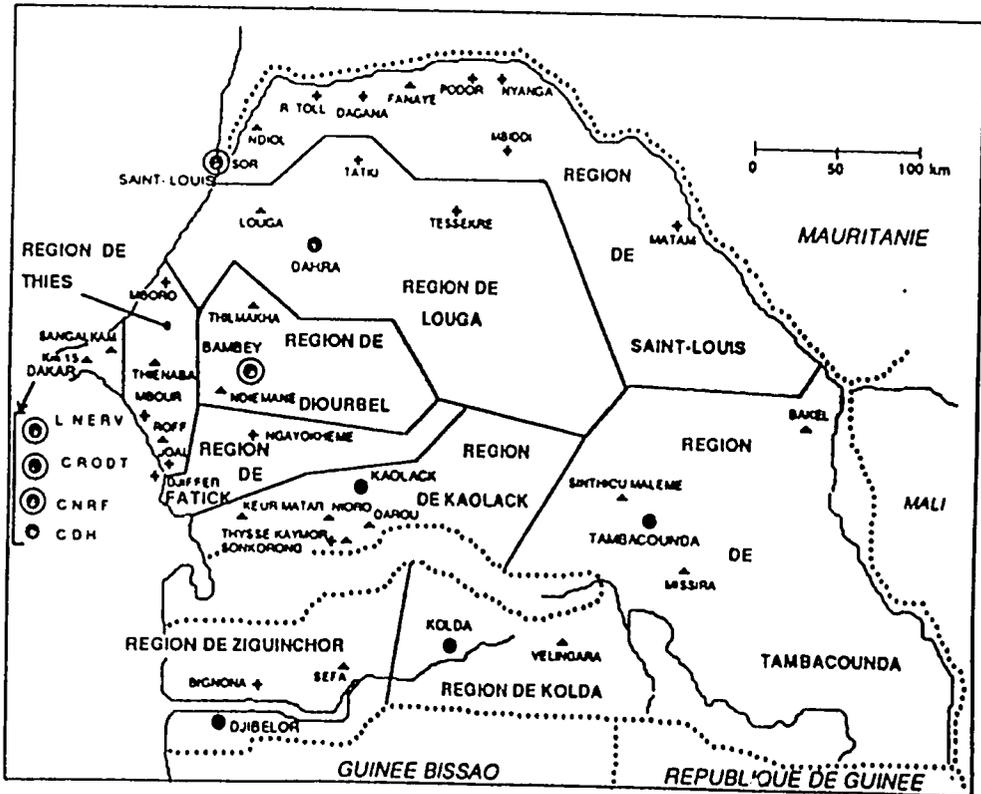
LIST OF ACRONYMS

ACP	Agence Comptable Particulière
AFID	Africaine D'Ingenierie pour le Développement
AT	Assistance technique
BAME	Bureau d'Analyses Macro-économiques
CDH	Centre pour le Développement Horticole
CF	Conseiller Financier
CFA	Communauté Financière Africaine
CG	Contrôle de Gestion
CGO	Comité de Gestion des Octrois
CID	Consortium for International Development
CIRA	Centre International de Recherches Agricoles
CNRA	Centre National de Recherches Agronomiques
CNRF	Centre National de Recherches Forestières
COP	Chief of Party
CRODT	Centre de Recherches sur les Produits Halieutiques
CRSP	Collaborative Research Support Program
CST	Comité Scientifique et Technique
CV	Conseiller à la Vulgarisation
DAI	Development Alternatives Incorporated
DG	Direction Générale
DRCSI	Direction de Recherches sur les Cultures et Systèmes Irrigués
DRCSP	Direction des Recherches sur les Cultures et Systèmes Pluviaux
DRPF	Direction des Recherches sur les Productions Forestières
DRPH	Direction de Recherches sur les Produits Halieutiques
DRPV	Direction de Recherches sur les Productions Végétales
DRSAEA	Direction de Recherches sur les Systèmes Agraires et l'Economie Agricole
DRSPA	Direction des Recherches sur la Santé et les Productions Animales
DS	Directeur Scientifique de l'ISRA, ISRA Scientific Director
EDP	Electronic Data Processing
EEP	Examen de l'Exécution du Programme
ENSA	Ecole Nationale Supérieure d'Agriculture
FA	Financial Advisor
GIS	Geographical Information System
GRN(SP)	Gestion des Ressources Naturelles (et Systèmes de Production)
GRNSPZS	Gestion des Ressources Naturelles et des Systèmes de Production en Zone Sèche
GWC	Grants Working Committee
IARC	International Agricultural Research Centre
ICRAF	International Center for Research in Agroforestry
ICRISAT	International Center for Research in the Semi-Arid Tropics
IDA	International Development Agency
IITA	Institut International de Technologies Alimentaires
ILCA	International Livestock Center for Africa
INFORM	Information for Agricultural Research Management
INTSORMIL	International Sorghum and Millet Program

ISNAR	International Service for National Agricultural Research
ISRA	Senegal Agricultural Research Institute
IST	Institut des Sciences de la Terre
KIT	Royal Tropical Institute, The Netherlands
LNERV	Laboratoire National d'Élevage et de Recherches Vétérinaires
M/E	Monitoring and Evaluation
MIS	Management Information Systems
NARS	National Agricultural Research System
NGO	Non-governmental Organisation
NRBAR	Natural Resources-Based Agricultural Research Project
NRI	Natural Resources Institute, The United Kingdom
NRM	Natural Resources Management
NRP	Natural Resources Planner
OA	Outreach Advisor
ONG	Organisation non-gouvernementale
OP	Organisation Paysanne
ORSTOM	Office de la Recherche Scientifique et Technique Outre-Mer
OSDIL	Organisation Sénégalaise pour le Développement des Initiatives Localisées
OSU	Oregon State University
PAPEM	Points d'Appui pour Essais Multiloceaux
PIR	Project Implementation Review
PNVA	Programme National de Vulgarisation, National Extension Service Proj.
PR	Planificateur de Recherche
PRN	Planificateur des Ressources Naturelles
PVO	Private Voluntary Organisation
RP	Research Planner
SARH	Service de l'Administration et des Ressources Humaines
SARII	Senegal Agricultural Research II
SAS	Statistical Package for Social Sciences
SG	Sécretariat Général
S/E	Suivi et Evaluation
SIG	Système de Gestion Géographique Informatisée
SNRA	Système National de Recherches Agricoles
SOW	Scope of Work
SYSPAI	Computer-Based Payroll Management System
TA	Technical Assistant
TDY	Consultant de courte durée, Short-term Consultant
TOR	Terms of Reference
UNIVAL	Unité d'Information et de Valorisation
UPF	Unité de Programmation et Formation
USAID	United States Agency for International Development
WARDA	West African Rice Development Association

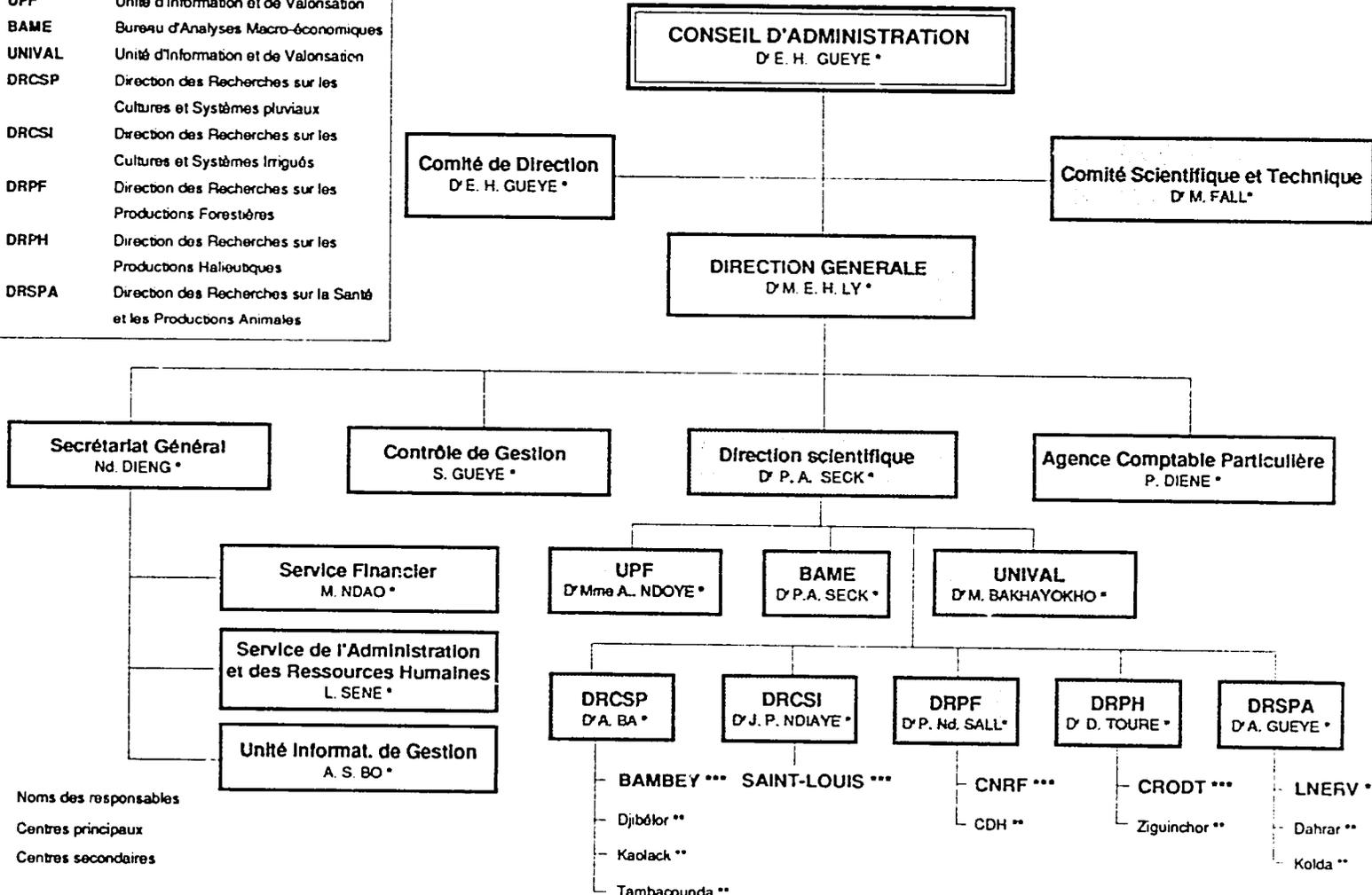
IMPLANTATIONS GÉOGRAPHIQUES DE L'I.S.R.A

<p>● 5 centres principaux, bases des Directions</p> <p>Dakar - LNERV pour la DRSPA</p> <p>Dakar - CRODT pour la DRPH</p> <p>Dakar - CNRF pour la DRPF</p> <p>Bambey - CNRA pour la DRPV</p> <p>Saint-Louis pour la DRSAEA</p>	<p>● 6 centres secondaires</p> <p>Kolda</p> <p>Dahra</p> <p>CDH</p> <p>Djibélor</p> <p>Tamba</p> <p>Kaolack</p> <p>▲ 18 stations et PAPEM</p> <p>◆ 15 points d'essal</p>
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ORGANIGRAMME DE L'ISRA

UPF	Unité d'Information et de Valorisation
BAME	Bureau d'Analyses Macro-économiques
UNIVAL	Unité d'Information et de Valorisation
DRCS	Direction des Recherches sur les Cultures et Systèmes pluviaux
DRCSI	Direction des Recherches sur les Cultures et Systèmes Irrigués
DRPF	Direction des Recherches sur les Productions Forestières
DRPH	Direction des Recherches sur les Productions Halieutiques
DRSPA	Direction des Recherches sur la Santé et les Productions Animales



- * Noms des responsables
- *** Centres principaux
- ** Centres secondaires

1. INTRODUCTION

1.1 BACKGROUND, OBJECTIVES AND ANTICIPATED OUTPUTS

In order to continue the development of the Institut Sénégalais de Recherches Agricoles (ISRA) as an effective research institution, ISRA and the United States Agency for International Development (USAID) have designed the Natural Resources-Based Agricultural Research Project (NRBAR). The project is detailed in the Project Paper dated 23 July, 1991, and was initiated by the NRBAR Grant Agreement between the Government of Senegal and the United States of America dated 31 July, 1991. The project is scheduled to be completed on 31 July, 1998. A five-years contract for NRBAR services (USAID Contract number 685-0285-C-00-2329-00) was awarded to the Consortium for International Development (CID) by USAID in July, 1992.

The principal problems addressed by the project are Senegal's need for low-cost natural resources-based agricultural technologies in order to increase the productivity of agricultural systems, and the need for ISRA to have a strong institutional capacity to undertake natural resources-based research. The project is designed to focus particularly on improving resource management practices which enhance the productivity and sustainability of cereals-based cropping systems in areas of Senegal having greater than 400mm annual rainfall.

OBJECTIVES

There are four overriding project objectives, expressed in terms of ISRA's development during the project period:

- (1) an improved natural resources-based research program in place,
- (2) natural resources-based technologies validated and available for adoption,
- (3) a strong farmer-participatory research system in place for designing, testing and validating research, and
- (4) improvements in research and financial management.

ANTICIPATED OUTPUTS DURING THE LIFE OF THE PROJECT

1. Effective, adaptive research program focusing upon cropping systems and resource management in areas of (i) soil and water management, (ii) forestry and agroforestry, (iii) improved cultural practices for millet, sorghum, rice and corn, and (iv) applied economics for production, marketing and policy issues relating to cereals cropping systems, such that:

1a. at least 15 technology systems will be validated for on-farm use during the life of the project.

2. Improved research planning, and improved research, financial and manpower management, such that:

2a. research programs have clearly-defined objectives achievable in the medium term,

2b. systems are in place for periodically evaluating and revising research priorities and programs,

2c. financial management systems are in place providing satisfactory accountability and control, and producing useful information to senior management,

2d. a merit-based personnel evaluation and promotion system is in place, and

2e. the size and composition of ISRA staff are aligned with research priorities and available resources.

3. Improved research-extension linkages, including feedback from farmers to ISRA on research results and from ISRA to farmers on appropriate and sustainable technologies, such that:

3a. ISRA collaborates with at least 15 private voluntary organizations (PVOs), farmer organizations and input suppliers to evaluate technology (including the use of signed protocols), and

3b. ISRA has developed methods for enhancing the roles of farmers' organizations, PVOs and private input suppliers to transfer improved technology to farmers.

4. Strengthened linkages with key domestic and international research institutions on natural resource management, cropping systems and adapted technologies, such that:

4a. protocols with network collaborators clearly support ISRA's research priorities, and define roles, responsibilities and resources.

5. Up-graded technical and administrative staff skills.

1.2 PROJECT RESOURCE COMPONENTS

In order to achieve the above objectives, the project has seven major resource components, which can be summarised as follows:

I. **RESEARCH PROGRAM SUPPORT:** a grants program to support effective ISRA/farmer collaboration and interdisciplinary research proposals from ISRA scientists, consisting of:

ia. **COLLABORATIVE RESEARCH GRANTS PROGRAM:** funds available under the CID contract total \$1,612,500. ISRA will provide a research grants coordinator for this program, and both ISRA (researchers) and CID (Technical Assistance) will provide expertise. In addition, ISRA will establish and implement a Grants Committee, and CID will provide financial management services for the initial years of this program.

ib. **GRANTS TO ISRA RESEARCHERS:** ISRA will administer these grants through existing committees and CID will provide financial management services for the initial years of the project. Funds to be provided directly by USAID, during the later years of the project, will be released after ISRA's financial system has been 121D certified. There are three types of grants:

ib.1: **GRANTS FOR RESEARCH IN SENEGAL:** funds available under the CID contract total \$225,500, and USAID will directly provide an additional \$450,000.

ib.2: **SITE STUDIES:** funds available under the CID contract total \$101,250, and USAID will directly provide an additional \$45,000.

ib.3: **SABBATICALS:** funds available under the CID contract total \$53,500, and USAID will directly provide an additional \$320,000.

II. **SUPPORT FOR ISRA'S NATURAL RESOURCES PROGRAM:** a grants program to support ISRA's core funding. Funds available directly from USAID total \$1,000,000. ISRA will administer these funds through existing committees, following ISRA's financial (121D) certification.

III. **LINKAGES TO REGIONAL AND INTERNATIONAL RESEARCH INSTITUTIONS:** a grants program to develop and strengthen ISRA's links with international institutions. Funds available directly from USAID total \$500,000. ISRA will administer these funds through existing committees, following ISRA's financial (121D) certification.

IV. **PERSONNEL:** the NRBAR Project Director is the Director General of ISRA, M. El. H. Ly, with the NRBAR Deputy Director designated as the ISRA Scientific Director, P.A. Seck. Project personnel consist of ISRA permanent staff, with the following responsibilities: P. Nd. Sall for NRBAR Grants Management, P. A. Seck for NRBAR

research planning, A. Bâ for natural resources programs, D. Sarr for outreach, and Nd. Dieng for financial management. Additional personnel consist of four long-term external Technical Assistance staff and a project administrator, CID and USAID support staff, and numerous short-term external staff. External staff are provided by the CID contract, as follows:

IVa.LONG-TERM TECHNICAL ASSISTANCE:

IVa.1 RESEARCH PLANNER: (Tom Cusack: 1992-97) is responsible to the ISRA Scientific Director and works primarily through the Direction Scientifique. Tom Cusack will also serve as Chief of Party for execution of the CID contract.

IVa.2 NATURAL RESOURCES PLANNER: (Paul Anamosa: 1992-97) is responsible to the Bambey Centre Director, and works primarily through the Direction des Recherches sur les Cultures et Systèmes Pluviaux (DRCSP) and the Direction des Recherches sur les Productions Forestières (DRPF).

IVa.3 OUTREACH ADVISOR: (Wendy Wilson: 1992-97) is responsible to the ISRA Kaolack Research Station Director, and works primarily through DRPF, DRCSP, BAME and the Unité d'Information et de Valorisation (UNIVAL).

IVa.4 FINANCIAL ADVISOR: (David Holmes: 1993-96) is responsible to the Secrétariat Général, and works primarily through the Secrétariat Général, the Contrôle de Gestion and the Agence Comptable Particulière. The financial advisor will provide short-term assistance after 1996.

IVa.5 PROJECT ADMINISTRATOR: (Anne Williams Sidibé: 1992-97) is responsible to the CID Chief of Party, and undertakes necessary logistical, administrative and technical support to project personnel. The project administrator is assisted by the Assistant Administrator, Mme. Faty Ba, who is scheduled to work with ISRA during the period 1992-1997.

IVb.SHORT-TERM TECHNICAL ASSISTANCE: 99 person-months during the period 1992-97.

V. PARTICIPANT TRAINING: a grants program to support all project objectives. This program is funded under the CID contract, and is administered by ISRA and CID. CID will provide financial management services during the life of the CID contract.

Va.LONG-TERM TRAINING: funding of \$1,575,000 for approximately five Doctorate and 10 Masters Degrees.

Vb.SHORT-TERM TRAINING AND CONFERENCES: funding of \$700,000 for approximately 35 programs outside of Senegal.

Vc.SHORT-TERM TRAINING IN SENEGAL: funding of \$192,677 for approximately 25 programs.

Vd.LONG-TERM B.S. TRAINING FOR WOMEN: funding of \$410,000 for 10 participants.

VI. DIRECT SUPPORT BY ISRA: ISRA will provide resources valued at more than \$3,500,000 during 1991 - 1998 in order to support all facets of the project. The salaries of collaborating ISRA staff (including the Project Director and the Deputy Director), the provision of office space, and access to appropriate ISRA facilities and equipment will represent most of these resources.

VII. ADDITIONAL MATERIAL SUPPORT BY USAID: USAID will assign in-house personnel to assist with project implementation, especially a NRBAR Project Officer and an Assistant Project Officer. USAID will also fund a technology inventory study, a financial study, and project audits. USAID will directly provide office furniture, household furniture and major appliances for Technical Assistants, twelve computers with associated equipment for ISRA staff and Technical Assistants, five project vehicles, and other logistic support when necessary. CID will provide under its contract with USAID other logistic support, office equipment (except computers), six vehicles, and support for offices in the U.S. and in Senegal, including 24 person-months of a CID NRBAR Coordinator (David Acker of Oregon State University) and 45 person-months of clerical support at Oregon State University. Substantial support will also be provided by Howard University, Tennessee State University, and Development Alternatives Incorporated, who are partners under the CID contract.

1.3 PROJECT PROGRAMS

In order to use these seven categories of resources to achieve project objectives, the project is organized into four programs: research planning and management, natural resources programs, outreach, and financial management. Activities planned under each of these programs have been detailed in the 1993 Annual Workplan for NRBAR. Activities can be summarised as follows:

RESEARCH PLANNING

The aim of this facet of the project is to strengthen ISRA's planning and management systems by:

- (a) redefining the five-year plan,
- (b) establishing a program which matches priorities with human, physical and financial resource realities,
- (c) planning and implementing institutional reorganisation,

- (d) improving the research planning process with regard to the way decisions are made, budgeted for, and implemented,
- (e) improving manpower planning,
- (f) planning and coordination of ISRA-wide research and linkage activities at Departmental, station, on-farm and international levels,
- (g) reviewing priorities,
- (h) reviewing research methodology,
- (i) dissemination of results,
- (j) organising periodic peer and program reviews, and
- (k) undertaking other tasks consistent with project objectives.

NATURAL RESOURCES MANAGEMENT PROGRAMS

The aim of this facet of the project is to strengthen ISRA's natural resources-based agricultural research activities by:

- (a) planning, conducting and evaluating natural resources-based agricultural research,
- (b) developing a coherent strategy and program for natural resources-based agricultural research which fits into ISRA's long-term development strategy and plan,
- (c) developing inter-disciplinary, farmer-oriented and farmer-participatory approaches to research planning, execution and evaluation,
- (d) reviewing existing natural resources technologies available in Senegal and elsewhere, and
- (e) establishing a program to address priority natural resources management needs.

OUTREACH

The aim of this facet of the project is to strengthen ISRA's links with its clients by:

- (a) developing a system of protocols and grants with NGOs, farmers organisations, and extension agencies, such that farmers participate in research needs assessment, research priority setting, execution and validation,
- (b) organising its outreach program,
- (c) establishing adequate outreach procedures,

- (d) establishing monitoring systems, and
- (e) ensuring effective field testing and adoption of technologies.

FINANCIAL MANAGEMENT

The aim of this facet of the project is to strengthen ISRA's financial management system by:

- (a) developing adequate financial systems at ISRA,
- (b) increasing the effectiveness of the computerised accounting system,
- (c) strengthening indirect cost accounting processes,
- (d) generating timely financial analyses in forms appropriate to decision-makers at all levels, and
- (e) developing a system for tracking all donor and Government of Senegal contributions.

PROJECT SUPPORT ACTIVITIES

The activities summarised above are supported by management, administration, and monitoring and evaluation activities, as well as by the provision of financial services. Leadership and overall project support is provided by the Project Director, the Deputy Project Director and the Grants Administrator, as part of their ISRA duties. In addition, CID NRBAR staff participate in project support activities, with effort being concentrated at the Chief-of-Party and Project Administrator levels.

1.4 OVERVIEW

This second Biannual Report of the NRBAR project covers progress achieved up to 31 December, 1993. Biannual Reports, which summarise progress recorded in the NRBAR Monthly reports and other project reports, are scheduled to be produced twice each year. The third Biannual Report is scheduled for August 1994, covering the period January to July, 1994. The format of this report follows as closely as possible the format of the 1993 workplan, in order to ensure adequate cross-referencing.

Sections 2 to 5 of this report detail progress to date under the four major thrusts of the project: research planning and management, natural resources management programs, outreach, and financial management; each of these Sections consists of a separate report from the responsible ISRA/NRBAR team members. Section 6 details project support activities, including orientation, administration, management, monitoring and evaluation, and financial services. Section 7 summarises progress under each resource component of the project, while Section 8 provides a summary of the budget and levels of expenditures to date.

The technical assistants have formed teams and work collaboratively with counterpart scientists and administrators in the relevant sections of ISRA. The emphasis is on strengthening ISRA as an institution, in those areas targeted by the project. Multidisciplinary and farmer-participatory approaches to research are being emphasised.

This report has been produced as a truly integrated effort by ISRA, USAID and CID. Following preliminary meetings between individuals and small groups of ISRA and CID personnel, an initial draft of the report was written, in French and English, and circulated to principal collaborators before the Annual Joint Review. Following reviewers' comments received at, and subsequent to, the Annual Joint Review, this final draft was prepared, in French and English, and distributed to all collaborators in Senegal and elsewhere.

2. RESEARCH PLANNING

2.1 OBJECTIVES AND PLANNED WORK ACTIVITIES

The aim of this facet of the project is to strengthen ISRA's planning and management systems. Scheduled research planning activities, summarised as (a) to (k) below and described in detail in pages 7 to 14 of the 1993 Workplan, are particularly oriented to achieving Project Objective (4) and Anticipated Project Outputs 2a. to 2e.

2.2 WORK UNDERTAKEN DURING THE PERIOD

To date, the research planning team has emphasised the planning of a program of research management in the following areas: ex ante evaluation of technologies, ex post evaluation of technologies, evaluation of impact, external evaluations, and strategic planning.

The following major activities have been undertaken by the research planning team to date:

(a) redefining the five-year plan,

A plan for developing the terms of reference for a ISRA 5-year strategic plan was developed and agreed with the World Bank. A visit to ISNAR was made by the Scientific Director and by the BAME Research Coordinator to review available documentation and to make initial professional contacts on the terms of reference.

(b) establishing a program which matches priorities with human, physical and financial resource realities,

An initial proposal for defining ISRA's strategic research priorities has been drafted and is being reviewed by the DS, BAME, and UPF. A TDY proposal has been drafted and is being reviewed. The ISNAR visit provided background for a study of research priorities, in conjunction with activity (a).

(c) planning and implementing institutional reorganisation,

Financial reorganisation proposals were drafted with the assistance of Ernst and Young (see Section 5), and a TDY to assist with the station reorganisation program has been agreed for the First Quarter of 1994.

A TDY assisted ISRA with the compilation of the first NRBAR Procedures Manual, and began the process of revising the ISRA institution-wide procedures manual; further TDY inputs on this have been agreed upon in principle.

(d) improving the research planning process with regard to the way decisions are made, budgeted for, and implemented,

Initial discussions on describing the existing processes and defining constraints have been held with the DS and at BAME. A monitoring and evaluation program for ISRA has been initiated with the CG and other ISRA units; a TDY assisted with preparation of a monitoring and evaluation plan for ISRA/NRBAR, which was designed to provide a blueprint for monitoring and evaluation processes throughout ISRA. It was agreed that the TDY should return each year, in order to assist CG and others with institutionalisation of these processes. An ISRA research impact study was initiated, assisted by a TDY who trained research staff in the necessary techniques; a methodology and a workplan were developed and accepted by the CST, and an initial methodological study is near completion by BAME. Initial outlines and data requirements were completed for the studies of sorghum, millet, maize and rice.

A project outline for the implementation of the INFORM research management data system was written.

(e) improving manpower planning,

A TDY assisted ISRA with compiling a long-term training plan for NRBAR participant trainees, as a blueprint for a similar institution-wide plan; this plan is being implemented, at the same time as a second generation plan is currently being drafted. A terms of reference for a human resources component of the ISRA strategic plan will be developed, in conjunction with activity (a). A training needs assessment is being planned using World Bank funds.

The need for a management-oriented database for ISRA's human resources has been recognised, and a first draft database has been compiled by the Unité d'Administration et Ressources Humaines; this will be distributed by UNIVAL.

(f) planning and coordination of ISRA-wide research and linkage activities at Departmental, station, on-farm and international levels,

A January NRBAR launching workshop successfully brought together all potential ISRA, partenaire and funding agency collaborators for two days to discuss the first annual workplan. The 30th June, 1993, public exposition of ISRA's research results, included a successful display of ISRA's work on natural resources technologies. The September national research coordinating meetings provided the basis for the 1994 ISRA research plan by on-site review of draft research proposals. The October visit to ISNAR by the ISRA Scientific Director and the ISRA economics research coordinator established a program of cooperation in the research planning area. The November financial workshop achieved an ISRA-wide consensus on ISRA's financial management plan. The December meeting of the ISRA Council of Administrators, provided the basis for the 1994 administrative plan. A proposal for a TDY to review linkages needs is presently being planned with the DS. A specific visit to the national agricultural research service in Morocco is also planned.

(g) reviewing priorities,

The team participated in various ISRA and unit level planning meetings, designed to provide a secure planning base for the 1994 program.

(h) reviewing research methodology,

The team assisted with reviews of the technology inventory survey proposals, with the technology inventory reports, with the research impact methodology, and with the Ernst and Young financial study reports. A proposal for the review of economics methodology has been drafted with BAME.

(i) dissemination of results,

Major activities centered on the June exposition of ISRA's work (under activity (f)) and on the research impact study (under activity (d)).

(j) organising periodic peer and program reviews.

The team participated in planning functions on ISRA grants committees for NRBAR resource components. A program of planning meetings prior to compilation of the 1994 ISRA workplan was implemented, including the September national research coordinating meetings referred to under activity (f).

(k) undertaking other tasks consistent with meeting project objectives in an efficient manner,

The DS, UPF and BAME participated in the monitoring and evaluation exercise indicated under (d) above, from the viewpoint of improved project management. A program for micro-economics training and development of BAME has been agreed, and a TDY has been agreed with the DS/BAME to initiate this program.

2.3 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The above activities and thrusts of the research planning program are in accordance with the NRBAR 1993 Workplan, and have involved in many cases the cooperation of the NRBAR natural resources, outreach, and financial and administrative teams, as well as USAID, World Bank, ISNAR and private consultant personnel. Priority workplan activities were implemented, although the research priorities study and the strategic plan remain at the planning stage. The team has developed a strong foundation for implementing a focussed research planning program in 1994 and beyond.

The main difficulty of implementing the program was limited staff time due to the need to initiate the planning and administrative mechanisms of the NRBAR grants programs, the need to establish appropriate project reporting systems, and the time required to effect the transfer of responsibilities to the new Scientific Director.

The program for the first six months 1994 will concentrate on the planning and implementation of the research impact, research priorities and the BAME microeconomics studies, on developing an overall basis for the next five-year plan, and on station operations management issues.

3. NATURAL RESOURCES MANAGEMENT PROGRAMS

3.1 OBJECTIVES AND PLANNED WORKPLAN ACTIVITIES

3.1.1 Objectives and Approach

The objectives of the Natural Resources Management Program is to strengthen ISRA's capacity to generate agricultural technologies that sustainably manage the natural resource base for its clients by:

- (a) planning, conducting and evaluating natural resources-based agricultural research;
- (b) developing a coherent strategy and program for natural resources-based agricultural research which fits into ISRA's long-term development strategy and plan;
- (c) developing inter-disciplinary, farmer-oriented, and farmer-participatory approaches to research planning, execution and evaluation.
- (d) reviewing existing natural resources technologies available in Senegal and elsewhere, and
- (e) establishing a program to address priority natural resources management needs.

The Natural Resource Planner (NRP) is primarily responsible for developing project activities to meet these objectives. The strategy of the NRP towards meeting these objectives has been grounded in a participatory approach with counterparts and other effected ISRA staff, Senegalese, and expatriates involved in improving the integration of natural resource management into the agricultural technology development process. This strategy is based on joint ownership of ideas and actions so that individuals have invested both their perspectives and time and therefore have a vested interest in the success of these ideas and actions as valuable advances for ISRA. Joint ownership of actions will be pursued through a series of five steps: planning, sensitization, training, implementation, and follow-up.

3.1.2 Planned Workplan Activities

The focus of the Natural Resource Planners program during the first year of the project has been on the following sub-program areas: (A) Orientation to ISRA; (B) Sensitization to NRBAR Technical Objectives; (C) NRM Programme Objective and Priority Setting; (D) Training and Site Visits; (E) Bi-Annual Research Collaboration; and (F) Project Set-up. Each sub-program area is composed of specific activities and explained in detail in the 1993 Workplan.

Activities were prioritized in early February during consultations with Tom Cusack, NRBAR COP, and Amadou Bâ, NRP Counterpart. Highest priority was given to: mobilization of Grants to ISRA Researchers Program; development of ISRA Natural Resource Management Research Strategy; implementation of GIS capacity to support Monitoring and Evaluation activities and to assist ISRA research planning. To meet these priorities, specific activities were chosen from the Workplan and will henceforth be referred to by those designated Activity Numbers.

Natural Resource Planner 1993 Workplan Activities

Sub-Program & Activity	Sub-Program & Activity
A. Orientation	D. Training and Site Visi .
1. Orientation to ISRA DG, Station, and Research and financial cycles and personnel	10. Network Possibilities
2. Orientation to other in-country NRM and research groups (ORSTOM, CIRAD, Rodale, CILLS, CORAF etc.)	11. Determine ISRA needs; strategize exposure
	12. Selection Criteria
B. Sensitization to Technical Objectives:	
3. Agro-Ecological Basis for NRM	F. Short-term Bi-Annual Technical Assistance
4. Scientific and Technological Research	13. Needs Assessment
	14. Solicit & Select Proposals
C. NRM Program Objective and Priority Setting	15. Develop Working Protocols with Individuals
5. Logical Framework for Objective Setting	
6. Research alignment to priorities	G. Set-up Internal Project Structures
7. NRM Strategic Plan Planning	16. Monitoring and Evaluation Plan
8. Program NRM Grants to ISRA Researchers	17. Management Information System
9. Establish Soil/Legume/Agroforestry disciplinary Soil Management group	18. Geographic Information System
	19. Policy and Procedures
	20. Protocols for Grants to ISRA Researchers

The high priority assigned to some activities, obviously and consequently, required assigning lower priority to the other activities. In addition several sub-program areas were dependent on initial steps by other project components. For example, sub-program areas D and E are to be implemented based on a Training Needs Assessment or a Short-term Training Plan, which was planned for implementation in late 1993 or early 1994 by the Research Planner. Therefore, some activities will be moved to higher priority as the initial High Priority activities are implemented.

3.2 WORK UNDERTAKEN DURING THE PERIOD

3.2.1 Description of Work Undertaken

Orientation to ISRA personnel and systems was initiated during workplan development and continued at the Project Launching Conference in late January, 1993, primarily with ISRA administrators. It was anticipated that all Research Directors and those Programme Coordinators with objectives relevant to the project objectives would be contacted and interviewed to get a better understanding for ISRA research planning and execution processes. In addition, activities with the Outreach advisor were planned to provide an introduction to NGOs, the variety of agro-ecologies, production systems in the project zone, etc.

Discussions were held with Papa SALL, Direction de Recherche sur les Productions Forestières (DRPF), and Amadou BA, Direction des Recherches sur les Cultures et Systems Pluviaux (DRCSP), Hyacinthe MBENGUE, Coordinateur du Programme sur la Gestion des Ressources Naturelles et Systemes de Production en Zone Seche (GRNSPZS), et Mabèye Sylla, Coordinateur du Programme sur la Gestion des Ressources Naturelles et Systemes de Production en Zone Humide (GRNSPZH). In addition discussions were held with numerous researchers in these directions. Site visits were made to several villages in the regions of Thiès et Douribel with Winrock and Rodale.

The Natural Resource Planner has participated in a series of research programme planning meetings. These have included: (1) the Reunion du Comité de Programme de la Direction for the presentation and review results and accomplishments in the Programmes for GRNSPZS, Légumineuses, and Céréals Sèche in May; and (2) the Reunions de Programmation pour le Programme Technique in September for (2a) l'Etude et Amélioration de l'Elevage du Bétail Trypanotolerant et Gestion de l'Espace Agro-pastoral en Zone Humide du Sénégal à Kolda, (2b) le Programme de Diversification des Cultures pour Sénégal Oriental et la Haute Casamance à Tambacounda; (2c) le Programme de Céréales Pluviales en Zone Sèche à Bambey, le Programme de Légumineuses à Bambey, (2d) le Programme de Gestion des Ressources Naturelles et Systèmes de Production en Zone Sèche à Bambey, (2e) l'Amélioration de l'élevage en zone agro-sylvo-pastoral à Dahra, et (2f) le Programme d'Agroforesterie à Dakar.

Unfortunately, the orientation process was hampered by several factors: (1) demands to immediately initiate other project activities; (2) security concerns related to national elections; and (3) security concerns related to political problems in Ziguinchor. Presently, only the second of the three constraints is no longer a concern. However, conversations with ISRA personnel have been programmed during visits to Dakar or mutually attended meetings, seminars, and site visits.

By far the most pressing issue in the first year was the launching of the Grants to ISRA Researcher and the Collaborative Research Grants Programs, for which the NRP has played a lead role for the former and a supporting role for the latter in collaboration with the Outreach Advisor and Project Administrator. The process incorporated Workplan Activities 6, 8, and 20, and involved:

- (1) elaborating Grant Committee Management Protocols, which explain committee procedures for management of the grants program, including program objectives, committee membership, proposal evaluation criteria, selection procedures, submission forms, program advertisement, and management of funding;
- (2) receiving, registering, copying, distributing, reading, technically evaluating, and quantifying the quality of each proposal for the two grant programs (18 total); and
- (3) assisting with the initial USAID/CID/ISRA contracting procedures to mobilize the funding for each research project.

Since the initial start-up other aspects of grants management have been performed. Two site visits, one of which was attended by USAID personnel, were made in September to discuss objectives, approaches, and anticipated results. All of the Collaborative Grants were mobilized in the third quarter of 1993, so quarterly reports were submitted and reviewed in October. A group meeting was held with all grant recipients to identify commonalities of successes, approaches, and problems in implementation or with the protocols. This information will be used to assist with future management and modification of the grant protocols for 1994.

A Natural Resource Management Technology Inventory was contracted by USAID and ISRA/NRBAR before the CID-TA team arrival. The document, a survey of technologies, their method of implementation, and obvious constraints to further adoption, was presented to ISRA/NRBAR in several draft forms for commentary. The NRP presented comments and participated as Rapporteur during both review sessions. The Technology Inventory will be utilized as a part of the overall process to develop the Natural Resource Management Research Strategy, as well as a source of research ideas for the grants programs.

The ISRA Natural Resource Management Research Strategy incorporates workplan activities 5, 6, 7. The general approach to initiate a strategy was discussed with Tom Cusack, Research Planner; Wendy Wilson, Outreach Advisor; Amadou BA; and Hyacinthe MBENGUE. A formal proposal for the approach which explained the objectives, several implementation options (with advantages and disadvantages for each), and an implementation plan was developed and distributed to the NRBAR TA Team and to Amadou BA, H. MBENGUE, and Mabèye SYLLA.

The process to develop the NRM Research Strategy has been time-consuming in order to explore ideas, debate approaches and methods, and build consensus to the general concept of development of an explicit strategy to target resources. To alleviate the administrative load on Amadou BA, he was asked to, and did delegate the overall oversight responsibility to H. MBENGUE and M. SYLLA, coordinators for the Programmes de Recherche sur la Gestion des Ressources Naturelles et Systemes de Production en Zone Seche and Zone Humide (respectively).

A steering committee composed of H. MBENGUE, Madiagne DIAGNE, Mamadou NDIAYE, and Modou SENE was formed. The NRM Strategy Committee has met

numerous times and has refined objectives, drafted a general procedural approach to including the farmer and NGOs in the research processes of problem identification and technology evaluation, analysis, and diffusion. Presently the committee is: drafting text to explain and justify the strategy; planning the next procedural steps, which will include adding additional ISRA personnel to the committee to continue building consensus in ISRA; and identifying personnel external to ISRA who can participate in the eventual external review of the Draft NRM Research Strategy.

It is anticipated that the NRM Research Strategy will: utilize the Technology Inventory, the Grants Program, and several seminars to synthesize previous NRM research; identify and prioritize NRM research for different agro-ecological zones based on multi-disciplinary analysis with farmers and NGOs of farm production systems and synthesis of presently available research results; and develop an implementation plan to align experimental proposals and training needs with programme priorities. The NRM Strategy will be a stand alone document for the two NRM Programmes, and will be submitted as a framework for the NRM research to be conducted under the next ISRA Five-Year Plan.

Certain aspects of Project Set-Up activities were assigned to and managed by the NRP, whereas others only required his assistance. The NRP was assigned the lead role to assist ISRA with assessing its needs and planning development of an institute-wide Geographic Information System. A draft proposal was distributed in May which recommended starting the planning process with a Needs Assessment that would look at ISRA's needs to have such technology as well as the resources needed to implement an ISRA GIS (equipment, training, operating expenses, etc.).

The formal Proposal for an ISRA GIS Needs Assessment was submitted to counterpart Amadou Ba, in July. It was approved and submitted to the ISRA DG in September, who approved it in October. The ISRA GIS development Committee, recommended in the proposal was established in December. The committee met twice in December; once to make introductions and review general responsibilities, and another time to interview representatives of Centre de Suivi Ecologique and the Catholic University of Louvain. The committee is presently reviewing the credentials of consultants, who will be chosen in January 1994, and conduct the GIS Needs Assessment in the first quarter of 1994.

The NRP contributed to the monitoring and evaluation plan, which was developed in conjunction with a TDY MEP specialist. The major contributions were related to helping maintain the scope of the indicators within the manageable interests of the project and helping to identify process indicators that show intermediate progress towards eventual output indicators. This emphasis was made to improve the usefulness of the MEP as a management tool by providing indicators that allow tracking of implementation steps, and thereby identify weak process links.

Several activity areas were dependent on initial steps by other project components. For example, the programs for Training and Site Visit, and Short-term Bi-Annual Assistance were to be developed in collaboration with a training needs assessment or a short term training plan, which were planned for 1993. Although initiated in

May, this has not yet materialized, so the COP requested the CID-TA team to develop training programs independently with the respective ISRA units.

3.2.2 Achievements

The Natural Resource Planner has been able to develop close working relations with the Outreach Advisor, the Directeur de Recherche DRCSP, and the Coordinateur of the Programme de Recherche sur la Gestion des Ressources Naturelles et Systemes de Production en Zone Seche, focusing on developing technologies in the project zone. Closer collaboration with the Programme de GRNSPZH, the NRBAR Research Planner, and the Direction des Recherches sur les Productions Forestière, will be sought as the NRM Research Strategy develops, and as training and research plans are initiated.

The orientation to ISRA has been started but will continue as working relations progress. It is anticipated that the office for the NRP will move to the DRPF in early 1994. This will increase access to and awareness of researcher and programme activities. The development of the NRM Strategy will also undoubtedly increase access to personnel, policy, and procedures, as will development of the GIS capacity.

The Grants Protocols have been the most obvious achievement to date. They were initially well received by ISRA counterparts in draft forms, official reviews centered on financial requirements of USAID and/or OSU and were for the most part either easily resolved or non-negotiable. The final approval of the protocols took much longer than expected and almost too long to make them implementable for the 1993 growing season, but the approval period was typical of implementing a new policy requiring administrative coordination. The first real utilization of the protocols, during the proposal evaluation seminar, went surprisingly smooth. The objectives of the Committee Management Protocol were clearly stated, rules were explicit and followed, forms were apparently easily understood and completed.

The NRM Research Strategy has been slow to develop, but is coming. The fulfillment of the whole activity will take a considerable amount of time. As a concept and policy statement, it must first be seen by ISRA and the planning committee as useful for it to have any real intrinsic value. Second a general model of approach must be developed, which spells out what the strategy should do in relation to targeting resources or identifying topics or priorities. What is its real objective, and can the methods prescribed attain them? And third, the strategy will need to be put to paper, critiqued, reformulated, approved and implemented. The planning committee was formed, objectives and the strategic approach have been agreed upon and adopted. The text of the NRM Research Strategy is being elaborated, and submission and approval steps are being planned.

3.2.3 Comparison of Work Undertaken with Workplan

Several activities of the NRP have deviated from the original workplan. One major deviation will (could) be related with the development of the NRM Research Strategy. The strategy was originally planned to be based on several discrete preconceived steps, but as the planning process progresses these steps have changed as different ideas have been injected and new paths have been chosen. The development of the

NRM Research Strategy is presently very ISRA-participatory and their experience and insight will continue to help guide the process.

Developing linkages to people, organizations, or phenomenon outside of Senegal was to be approached in conjunction with the Research Planner and the Outreach Advisor (activities 10 to 15) and was dependant on a training needs assessment. This activity took a lower priority in the 1993 work-year, but will be elevated to a higher priority to promote exposure of ISRA administration and researchers to new ideas and skills. Most of these activities will be developed in conjunction with the major work categories for 1994, the NRM Research Strategy. It is anticipated that the plan will encompass training via short courses and site visits to improve skills in GIS, participatory research approaches, on-farm trial planning and management, and research and technology validation processes.

3.2.4 Difficulties

Major difficulties encountered during the first year of the project implementation have been primarily related to credibility of the project to deliver as promised. Early discussions with ISRA Directors, Coordinators, and researchers during workplan development emphasized the importance to mobilize project activities in a orderly but rapid manner. There was considerable apprehension by ISRA researchers that the grants programs would be so slow to mobilize funds that they would be essentially unusable. Unfortunately, there was an apparent misunderstanding that the general support funding would be immediately available. The funding was discussed at the launching conference and plans had been drawn to program the funds in the two Natural Resource Management Programs and the Agroforestry Program.

Coordination of project activities and awareness has also been difficult and has contributed to the credibility issue. The 1993 workplan resulted from cursory discussions and review with our new counterparts and was essentially three workplans stapled together. Responsibility to address some activities was assumed by several people (i.e. International Linkages by the RP and NRP) and some other activities were not addressed by anyone. To a large part the team proposed more than it was capable of delivering. Consequently, some activities that were the responsibility of one TA, but needed by another, have been delayed.

The coordination issue has also affected our counterparts. Due to the management structure adopted in the first year, there was little communication among the principal Senegalese counterparts attached to the project, or the TA with other Senegalese other than their formal counterpart. This made the project look much less engaged if viewed from the vantage point of any one person. This problem will be addressed in 1994. Methods to allow for more communication and increase group knowledge among project participants concerning all project activities are being explored.

Due to the security problems, travel is restricted to Ziguinchor. This has severely limited access to Mabèye SYLLA, Natural Resource Management and Production Systems Programme Coordinator, and the programme's personnel and planning activities.

3.3 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The most important program priorities have progressed well, in spite of the postponement of the ISRA NRM program support funding. The grant protocols have been developed and function well to date. The NRM Research Strategy is in the process of being written after considerable consultation with the planning committee, and it is hoped to play a major role to support program objectives. Several activities that most certainly will be a part of the NRM Research Strategy have already been initiated (GIS, NRM Research Synthesis).

ISRA had already made significant progress towards some project objectives before our arrival. ISRA was restructured in 1991-92 and created the Programmes sur la Gestion des Ressources Naturelles et Systemes de Production. These programs contain multi-disciplinary staffs and are already actively incorporating natural resource based management practices in the technology development process. A farmer-participatory research planning process needs institutionalization, but is already used by some research in collaboration with NGOs. Different modalities exist and are being explored and will be reflected in the NRM Research Strategy.

Several NRBAR specific activities are recommended. With the completion of the TA Team, the experience of each others work habits and personal approaches, and the upcoming development of the 1994 Workplan and the 1994-1997 Workplan, the team will need to more clearly define responsibilities for lead and supporting roles for collaborative activities. It is recommended that this be conducted as a team building seminar and include an outside moderator to facilitate discussion and promote consensus. Periodic sessions with the TA Team and their counterparts (8 to 10 persons) would be useful to jointly review progress, problems, and look to the future. The launching conference with its 50-80 participants was really too large of a forum to effectively deal with some important project issues.

4. OUTREACH

4.1 OBJECTIVES AND PLANNED WORKPLAN ACTIVITIES

The aim of this facet of the program is to enlarge and diversify the community which is aware of ISRA's activities, and to strengthen ISRA's links with its clients by:

- a) developing a system of protocols and grants with NGO's, farmers' organizations, and extension agencies, such that farmers participate in research needs assessment, research priority setting, execution; and validation,
- b) organizing the outreach program
- c) establishing adequate outreach procedures
- d) establishing monitoring systems, and
- e) ensuring effective field testing and adoption of technologies

OBJECTIVES

The primary objective of the Outreach and Collaborative Grants Program is to ensure that current and potential clients of agricultural research (farmers' groups, NGO's, parastatals, private sector) or users of agricultural research products (ie improved seed, natural fertilizers/compost, windbreaks, etc.) have knowledge of and access to appropriate and locally adapted natural resources based agricultural technologies, and that adoption of such technologies is increased within a locally sustainable context. This objective, which depends a great deal on various techniques of communication, connotes close collaboration with ISRA's UNIVAL (Unité de Valorisation) in order to increase public awareness of the services and products that ISRA can provide, increase awareness of the critical role these services and products should have in the effective management of Senegal's natural resource base. The implementation of formal working relationships between ISRA and its partners implies, as well, the establishment of a system of administering, financing, and monitoring of performance based collaborative research contracts among client groups and ISRA.

Key activities have been identified in the project paper and have been summarized here. They cover, in fact, the major responsibilities of the Outreach Advisor. In summary, the Outreach Advisor should:

1. Spend at least 50% of his/her time in the field advising and assisting the project with the collaborative research program.
2. Establish strong relationships with ISRA's UNIVAL, extension agency staff and farmer groups, NGO's, and private and parastatal organizations involved in agricultural development in the project zone.

3. Review the inventory of available technology and work with clients to define their research requirements in a performance-based proposal which can be carried out under this project.
4. Assist in the refinement of collaborative research contract proposals, attend review meetings, and review financial and technical requirements of each proposal.
5. Work with UNIVAL staff and clients to measure the impact of the research work under the contract.
6. Meet bi-annually with ISRA scientists and extension staff, as well as representatives of client organizations to review progress and plan future activities and modifications to the collaborative research contract process.
7. Work with appropriate organizations to assure the transfer of technology to the clients.

In order to carry out the responsibilities listed above, a sub-set of objectives was developed for the 1993 Workplan which was then linked directly to planned workplan activities. These sub-objectives included 1) Improve ISRA institutional capacity to work with ONG's, farmers' associations, etc., in diffusing selected NRM technologies 2) Improve the circulation of information between ISRA and its potential clients regarding its capabilities relevant to the diffusion of NRM-based technologies 3) Implement liaison activities aimed at supporting NRM related activities carried out by clients and 4) TA implements effective and efficient short and long term planning with ISRA.

PLANNED WORKPLAN ACTIVITIES

The Outreach Program is expected, during the LOP, to assure the institutionalization of two basic functions: the flow of information and services from ISRA to potential clients and research collaborators, and the flow of services, information and requests from clients and research collaborators to ISRA. The program intends to establish, in close collaboration with key ISRA staff, systems and procedures which will promote this mutual exchange of information and services. The Outreach Advisor works closely with the Natural Resource Planner and ISRA counterparts in order to assist in the completion of an inventory of existing NRM technologies being tested in the field by ISRA and current partners, the development of a list of recommended NRM practices, the diffusion of technologies which are ready for the consumer market, and those which have not yet been field-tested with farmers. There are three primary client groups for ISRA information and services; the agribusiness community (private sector), NGO's, and farmer associations.

The chosen strategy for 1993 was to employ, to the extent possible, a collaborative approach which stressed participation of researchers and NGO's in the prioritization of tasks, planning, and implementation. It was planned that regular visits to ISRA research centers would provide an understanding of staff scientific objectives as well as institutional research and technology goals and plans. Selection of pre-NRBAR collaborative activities were to precede field visits throughout the project zone. Such

visits would facilitate familiarity with NGO's, farmer associations, and GIE's which are currently working with ISRA. Seminars and workshops involving the technical assistant, ISRA staff, and collaborating institutions were to have been employed. Likewise, short-term technical assistance were to be considered for training recommendations, as well as assessments of UNIVAL performance, potential strategies for public education for the rural sector, special contract requirements for the private sector, and gender disaggregated data collection of on-site NRM activity implementation.

On-going monitoring was envisioned that would use criteria developed by both NGO's and researchers. These early, first year monitoring visits would also contribute to ground-level indicators for project evaluation.

Activities were identified which are key to the institutionalization of an Outreach Program at ISRA. They include the following: 1) With ISRA staff, establish sets of criteria by which to assess the management abilities and institutional capacities of client NGO's; 2) Establish a grants management committee ISRA which will develop field procedures for assessing potential grantees, along with attending protocols of implementation 3) Establish ISRA in-house procedures for the management of grants. 4) Identify what office/s in ISRA will assume these responsibilities by the end of the project.

4.2 WORK UNDERTAKEN DURING THE PERIOD

Throughout the course of the first year, plans were made for several field trips to rural areas in the project zone. However, very few field trips were actually accomplished. This lack of mobility reflects four conditions that had an overriding effect on project implementation in the first year: the presidential elections and concerns about security; unanticipated delays in the initial implementation schedule due to heavy administrative duties of ISRA staff; various managerial tasks connected with project start-up that required the presence of the Outreach Advisor in Dakar (meetings in particular), and lack of clarity from ISRA on counterpart roles. In addition, the development of the protocols for the collaborative grants program, which required coordination of effort from various ISRA participants, turned out to be a lengthy process. In retrospect, though the development of the grant protocols was time consuming and labor intensive, it proved to be time well spent. In the process of working on the grant program good working relationships were formed, as well as more solid understanding of CID and ISRA collaboration in the NRBAR project. Since collaborative research projects actually received funding in third quarter of the year, monitoring and start-up visits were accordingly later in the year than expected. The third quarter had the most travel activity.

4.2.1 ACHIEVEMENTS

The Outreach Advisor was able to successfully establish a close working relationship with UNIVAL. With the Director, the OA developed a scope of work for a TDY that would have arrived in November or late October, 1993. A SOW was sent through the system in June for review and authorization to bring in short term technical assistance

in public awareness, media use, and public relations for natural resource management issues in general and ISRA in particular. This SOW was reviewed by the new Deputy Project Director in late November, who requested that it be revised for re-submission. Working relationships were also forged with FONGS and CONGAD; both organizations are now represented on the Grants Review Committee. It is expected that as the program broadens to include more PVO's, the working relationship with FONGS and CONGAD will become more significant. Initial meetings have been held with the PNVA Research Director, and it is anticipated that once project monitoring begins this rapport will also become more important.

The OA worked with other CID and ISRA team members on the review of the Natural Resource Management Inventory, and participated in selected GRNSP meetings. By collaborating closely with the NRP, the OA has been able to transmit important information to grant applicants regarding NRBAR project goals, objectives, and implementation concerns from the researcher/NRM perspective. Similarly, the OA worked closely with the project administrator in developing the financial procedures and guidelines for the collaborative grants programs, in providing guidance to grantees, and in planning orientation workshops. The OA worked with the NRP in the analysis of issues affecting the set-up of a management information system that will facilitate the management of data coming in from the field through field activity reports, technical reports, and monitoring visit reports. Meetings were held with Winrock, Rodale, and a DESFIL project representative in this regard. Such data will assist in the assessment of impact of the research work being implemented under the collaborative grants program, but the data collection system has not yet been set up. The OA met with a TDY consultant on M & E on this subject, and he is expected to make some suggestions for an implementation plan. It is intended that ongoing work with the M & E consultant/s, along with the quarterly NGO/researcher meetings, will provide opportunities for getting some of this done.

Orientation activities to ISRA went well, although not exactly as planned. Numerous visits to Bambey, to various offices at Hann, and attendance at various and numerous meetings were crucial to a better understanding ISRA and its personnel. The OA office was established at Bambey, and later discarded as an office for the sole use of the OA. It was discovered that the liaison tasks of the OA require more time in Thiès and Dakar than was originally anticipated, and that researcher work schedules are such that periodic meetings function better for information sharing with the OA and funded NGO's. Still, the OA visited Bambey at least once a month. To date certain office equipment, such as a computer and telephone, have not been installed. Portable computers are available in the Dakar office for use in Bambey, and can be picked up if scheduled. Several times attempts were made by both the OA and ISRA staff, such as the Center Director, to resolve the telephone problem. This has been slow in resolution and is affected by the on-going possibility of simply putting in project phone on a separate line. The frequency of field visits is still expected to increase as the project progresses - much depends on the coordination of various participation in selecting dates, etc. A SOW was submitted in February, and resubmitted in May, for a project zone NGO study looking into organizations working in GRN activities.. An advertisement for local consultants was prepared and submitted for clearance in October. After it is published, incoming CV's will be entered into the consultant bank which was developed by Rochelle Rainey during her

TDY from Oregon State University. Files were set up and a WP51 data base created for meeting consultant identification needs. Discussions have begun among NRBAR personnel (CID and ISRA) regarding the development of criteria for assessing NGO performance in technology transfer. The development of these criteria will come out of the quarterly meetings that have been established for researchers and NGO's.

The OA met with the (initial) homologue on repeated occasions in order to develop parameters for the collaborative grants program as well as other programmatic aspects such as the identification and selection of short term technical staff and planning monitoring of collaborative grants activities. The OA also worked with the short term technical assistance on the development of the NRBAR monitoring and evaluation plan.

Criteria for categorizing clients, methodologies for data collection and organization, and development of NRM training for ISRA clients are expected to derive in part from local and TDY short term technical assistance in collaboration with the OA and the newly appointed homologue for this project component. In spite of the submission of three SOW's and numerous lobbying meetings, none of the SOW's successfully made it through the system. They have been submitted to the new homologue for review and are also being re-worked according to the specifications expressed by the ISRA Project personnel.

Meetings with UNIVAL proceeded satisfactorily and discussion of the role of UNIVAL has made good progress; the Director is interested in short term training in communications management and is also interested in developing UNIVAL capacity to communicate with the rural sector more effectively. It is planned that further activities with UNIVAL will be outlined with the new homologue, and sent through the ISRA/NRBAR administrative structure for approval and authorization.

4.2.2 DIFFICULTIES

One of the greatest difficulties in project implementation during this first year has been in the area of management planning and decision making. This has been primarily due, it seems, to the effect of a change in personnel of the ISRA deputy project director, and to the loaded schedule of key personnel with whom the OA should interact on a regular basis. The change in the ISRA deputy project director apparently affected the collaborative planning that should have emanated from the COP and his counterpart; much time was lost in re-orientation and in administrative work. The OA has not as yet begun visits to project sites that are not currently active with ISRA, but this is expected to begin during the third and fourth quarters. Difficulties stemmed from the unavailability of an uninterrupted block of time that could be spent in the field away from office related duties, as well as the lack of clarity within the project regarding the level of autonomy the OA had for planning and implementation.

Some difficulty was encountered in identifying, assessing, and contracting for local short term technical assistance. The series of sign-offs, clearances, and reviews required has been one that requires repetitive meetings in order to assure that everyone is "on board." The chronology of reviews and sign offs was not always

clear, and occasionally personnel changes or absences (due to competing official duties) also slowed down the process.

In-house training for grants management has not taken place to date, the difficulty being the same as defined above, lack of availability of relevant participants, which led to a slip in the time frame for authorization of the protocols. The fact that an ISRA office which will be responsible for outreach has not been identified also had some affect. The authorization and clearance of the protocols was of paramount importance, and was achieved in the third quarter.

The development of criteria for categorizing clients and other client related data collection activities has not yet been achieved; these activities are directly linked to the lack of field time, inability to contract local TA to carry out related studies during the first two quarters, and the decision to integrate the NRBAR M & E data needs with existing NGO data collection activities where possible. This will take more time but is more likely to produce sustainable results that can be applied to more diverse needs, such as the proposed GIS system and DESFIL activities, for instance.

4.2.3 MAJOR ACTIVITIES: JULY TO DECEMBER, 1993:

JULY The first two weeks of July were spent working on the first biannual report, follow-up for SOW/TDY work related to UNIVAL and NGO studies, and on the development of NRBAR team preparation plans for the 1994 work plan. The second two weeks were devoted to the biannual report (Jan-June), meeting with a counterpart at UNIVAL and the OA homologue, and filling in as Acting Chief of Party.

AUGUST The first two weeks of August included COP duties. The OA met with the visiting World Bank team, and with various NGO's (at Thiès, Forme Action, and ENSA; at Dakar, Daniel Heinen at Winrock) and attended a presentation at USAID on the Fatick region. The last ten days of August were R & R time.

SEPTEMBER The first ten days were R & R time. The second half of the month will be taken up with field visits (Fatick, Baback, Mbour) and meetings with UNIVAL and the ISRA programming committee at St. Louis.

OCTOBER This month's activities included preparation for the next cycle of grant funding. Protocols will be reviewed, work on the team building workshop, and an ONG meeting of NRBAR participants at WINROCK, and a meeting with the staff of the national offices of the Centres d'Expansion Rurales. A field trip was undertaken to Mbour with researcher Mamadou Ndiaye.

NOVEMBER A meeting was held with the NGO association of Thiès at Tostan to discuss the NRBAR project, and a field trip was undertaken to Kaolack to visit the Africare project. Meetings included the ANR retreat, meetings with BAME member A. Ba, with the NGO ASPAP, a meeting with Alice Morton of the World Bank, and a meeting with the NGO Sahel 3000.

And a general meeting of 1993 NRBAR beneficiaries held at Bambey under the direction of Ahmadou Ba. Attempts were made, with the Natural Resource Planner, to get the grants management committee to meet this month. This was postponed.

DECEMBER This month was characterized by meetings in Dakar with the CID team, work on the 1994 Work Plan, work on the Team Building proposal, and on-going support to NGO's interested in submitting proposals to ISRA for 1994.

DIRECTIONS FOR JANUARY - JUNE, 1994

JANUARY

This month included meetings of the grants management committee, meetings with various NGO's, discussions with the new counterpart (Desirée Sarr), a meeting with the NRBAR M & E advisor, a meeting with a DESFIL representative, a representative of the NRM project in Guinea Conakry, and a monitoring trip to the 1993 funded research project sites.

FEBRUARY

This month should include meetings with various NGO's interested in preparing proposals for the NRBAR 1994 funding cycle, meetings with the ISRA counterpart at Kaolack, and meetings with the Director of Research at the PNVA. A trip to the Casamance is also planned for 1994 planning purposes. This month also includes the Internal Review, the Joint Annual Review, and hopefully, the Logframe Workshop/team building seminar.

MARCH

The Grants Management committee should meet to select 1994 grantees. Project start-up activities should be underway. Initial visits to some grantees may take place. Completion of the 1994 plan should happen by the second week of the month.

APRIL

Monitoring activities should be underway. Additional work on a data collection system for the Collaborative Grants component should take place in preparation for the TDY of the M&E consultant in May. Some progress on the proposed TDY's is expected by this month. Collaboration with UNIVAL should be resumed through the auspices of the official counterpart at Kaolack.

MAY

Monitoring activities continue for 1993 and 1994 funded projects. The M & E consultant will work with the OA on proposed implementation plans. TDY schedules should be in place, authorizations obtained. A local study of NRM activities by ONG's in the project zone may be initiated during this month. Possible formation of NRM Issues local committees (by arrondissement) may have begun.

JUNE

Activities for this month will depend on the calendar developed by the OA and her counterpart. It is intended that some progress will have been made for the TDY's proposed, and that work with UNIVAL will continue towards the development of training modules currently under discussion with the NRP and the GRNSP group at Bambey. Since this marks the beginning of the rainy season as well, some monitoring visits should be taking place during this period.

4.2.4 COMPARISON OF 4.2.3. WITH WORKPLAN AND JUSTIFICATION OF DEVIATION

The major deviation from the original 1993 work plan in the activities is in the timing and scheduling of their implementation, particularly the activities having to do with NGO inventories, visits, and field visits. An additional difference has been the regularity of meetings held at the station level with ISRA staff, and with counterparts, and lack of progress for the proposed TDY's. The reasons for this deviation have been described above under 4.2.2, "Difficulties."

4.3 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

In conclusion it can be stated that the year has gone fairly well; most of the objectives were achieved or are in the process of being achieved. In response to the empirical realities, adjustments have been made which, it is believed, will in the long run result in greater sustainability of the activities being promoted. Much of the work is in fact a process of institutionalization and formalization of practices which already exist, but are not coordinated or do not exist in a logical framework. ISRA does already, for instance, work with NGO's in the field, and some researchers have excellent rapport with certain farmers' associations. The significant difference that this sector of the project focuses on is determined, measurable, institutional change as opposed to coincidental institutional change. Steps have been taken to correct whatever discrepancies have existed between the original work calendar and current plans. It is estimated that by the end of the year 1994, although the work calendar has been adjusted, most if not all of the major carryover objectives for the 1993 year and for the current year will have been accomplished. The establishment of the

NGO/researcher working group, along with the appointment of a new homologue for the outreach component, should make a significant difference in the pace of activities for the new year.

It is recommended that the NRBAR team increase joint planning and complementarity between project components. Additionally, the OA component will understandably need to spend much more time in the field than during the first three quarters of Year I of the project. Coordination between development agencies and NGO's will need to be increased, particularly in the areas of monitoring and data collection in order to provide quality data that can be applied to the MIS and GIS systems that are expected to be put in place by NRBAR. More realistic goals should also be accepted in terms of the regularity of meetings between CID technical staff and their homologues (counterparts). Planning with this difference in mind can significantly benefit the project. Clear procedures for clearance of documents, decisions on program activities, and authorizations will make a difference, and this process has begun. Finally, the proposed activity of project logframe review and team building would significantly contribute to the successful implementation of the project.

5. FINANCIAL MANAGEMENT

5.1 OBJECTIVES AND PLANNED WORK ACTIVITIES

The aim of this facet of the project is to strengthen ISRA's financial management system by:

- (a) developing adequate financial sub-systems at ISRA,
- (b) increasing the effectiveness of the computerized accounting system,
- (c) strengthening the indirect cost accounting processes,
- (d) generating timely financial analyses in forms appropriate to decision-makers at all levels, and
- (e) developing a system for tracking all donor and Government of Senegal contributions.

The activities of the Financial Advisor complement the activities of Ernst & Young/Dakar (USAID Contract Number 685-0285-c-00-2299-00), including their Phase I analysis of the existing ISRA financial management system and recommendations for its improvement, and the implementation of the Phase II Action Plan for an improved financial management system. The Financial Advisor's activities reinforce ISRA management's capacity to coordinate, monitor, and evaluate the change process brought about by the Ernst & Young/Dakar program; and to assure the effective future operation of the reorganized financial management system. The Financial Advisor coordinates his activities with the donors in the development of the financial improvement plan.

During the period July to December 1993 the Financial Advisor work-plan was as follows:

- Orientation, meeting key participants, and reviewing the Ernst & Young documentation. Prepare output table summarizing results of document review.
- Participate in 1994 budget preparation.
- Learn the operations of current ISRA systems.
- Assist ISRA/SG in the development of SOWs for consultations in Computer Systems and Human Resource Development.
- Participate in meetings with ISRA and Ernst & Young to finalize the Action Plan for Step 2.
- Work on the resolution of out-standing accounting problems.

- Assist with the workplan for accomplishing the accounting for 1993.
- Review the proposed computer tool for the management of financing agreements.

5.2 WORK UNDERTAKEN DURING THE PERIOD

During the period July to December 1993 work from the Financial Advisor work-plan was undertaken as follows:

- Completed orientation, met key participants, and reviewed the Ernst & Young documentation. Prepared output table summarizing results of document review.
- Attended 1994 budget preparation meeting.
- Began learning the operations of current ISRA systems.
- Proposed SOW for consultation in Computer Systems.
- Participated in meetings with ISRA and Ernst & Young to finalize the Action Plan for Step 2.
- Participated in meetings to discuss modalities for the resolution of the outstanding vendor debt.
- Participated in meetings to develop the workplan for accomplishing the accounting for 1993.

During the period July to December 1993 problems delaying work from the Financial Advisor work-plan were encountered as follows:

- The SOW for the Computer System consultation was tabled by ISRA. ISRA judged that the UIG did not need external assistance in addressing the issues raised by the Ernst & Young/Dakar reports, nor in the migration from the System 36 to the AS/400.
- The SOW for the Human Resource Development consultation was not reviewed by ISRA. ISRA is more interested in identifying individual training opportunities.

Other accomplishments during the period included:

- ISRA delivered their proposed Action Plan for Phase II to USAID.
- The 1992 audit report was completed and delivered to ISRA.

- ISRA engaged consultants to study the market potential for ISRA's production of seeds and vaccines, and to determine ISRA's optimal organization for the marketing function.
- ISRA engaged an audit firm for the 1993 audit.

5.3 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Progress was made during the period towards reorganizing the ISRA financial management system.

During the period January to June 1994 the Financial Advisor work-plan will be as follows:

- Work with ISRA and Ernst & Young/Dakar as they implement the Action Plan for Phase II. This will include short-term training.
- Continue to reinforce ISRA management's capacity to coordinate, monitor, and evaluate the changes resulting from the activities of Ernst & Young/Dakar (USAID Contract Number 685-0285-c-00-2299-00) including:
 - strengthen management of the donor agreements;
 - install the payroll accounting module;
 - strengthen the management of fixed assets;
 - strengthen the treasury management system, including the IDA reimbursement process;
 - strengthen the management reporting system; and
 - establish the cost accounting system, including the determination of the indirect cost rate.
- Continue work with USAID and ISRA to establish modalities for the liquidation of some of the ISRA vendor debt.
- Work with ISRA and Ernst & Young/Dakar as they audit the 1993 financial reports.
- Participate with the CID/NRBAR team and the ISRA staff in a review of the NRBAR project logical framework. Develop the 1994 workplan and the 1994 - 1998 workplan with ISRA colleagues with reference to the logical framework.

6. PROJECT SUPPORT ACTIVITIES

During this initial period of the project, considerable emphasis was placed on establishing appropriate project support structures, in order to ensure an efficient administrative implementation of the project during the five years' project life.

All facets of the project support program are being successfully implemented, including meetings schedules and reporting exercises, with highest priority being placed on those activities which directly complement institutionalisation of the four programmatic thrusts. Major support activities to date include: close collaboration of ISRA, CID and USAID staff in the production of the 1993 Workplan (approved by USAID), the Procedures Manual (approved by USAID), the Monitoring and Evaluation Plan (presently being reviewed by ISRA), and ISRA's long-term training plan (approved by USAID).

Following the format of the NRBAR 1993 Workplan (pages 38-43), project support activities completed to date may be summarised as follows:

The CID COP, in cooperation with other ISRA/NRBAR team members, has:

- (a) planned and participated in regular meetings with project collaborators, and has compiled project reports as anticipated (see attached list),
- (b) participated in a ISRA/USAID inspection visit to project sites, during April and September,
- (c) administered offices and facilities, and supervised technical assistance and local staff, including the management (drafting SOW, logistics, recruitment, reporting, etc.) of 5 TDYs to date,
- (d) reviewed results of, and make recommendations from, the 1992-93 technology inventory study and the (Phase 1) financial management study which were locally commissioned by USAID,
- (e) participated in the April USAID Project Implementation Review by assisting with drafting of the PIR report,
- (f) (the audit of CFA expenditures has not yet occurred),
- (g) established, managed, effected payments on, and controled, the NRBAR local currency account,
- (h) developed project performance indicators during the first half of the year, with TDY assistance,
- (i) developed a draft monitoring and evaluation plan for the project, with the assistance of a TDY,

- (j) arranged for the Annual Joint Review, scheduled for the first quarter of 1994,
- (k) scheduled and managed (developed training plan, begun to identify/place trainees and monitor progress) all in-country aspects of NRBAR training, in close collaboration with other NRBAR team members, and collaborated with the CID NRBAR Coordinator for all foreign training matters, most importantly on the ISRA/NRBAR long-term participant training plan, and proposals for an ISRA/NRBAR short-term training plan,
- (l) assisted ISRA in developing a system for, help manage, and implement the collaborative research grants program,
- (m) completed the development of the NRBAR inventory system, and
- (n) completed project start-up/orientation activities such as French training, housing and office establishment, and familiarisation with ISRA and USAID procedures.

Activities of the Project Administrator have focused on the above logistical and administrative support, with a minor element of technical support, as follows:

- (o) administered the housing and local facility needs of the technical assistants,
- (p) undertook procurement and management of local project materials, including administration of vehicles,
- (q) provided personnel services for CID NRBAR staff, and office staff supervision,
- (r) provided translation services for a large volume of minor documents,
- (s) provided all necessary clerical and secretarial services, partly through supervision of the Assistant Administrator and through contracting out peak work loads,
- (t) provided accounting and financial management services for local currency transactions, partly through supervision of the Assistant Administrator,
- (u)-(x) discussed with BAME and SG their programs for finalising a database on existing ISRA infrastructure, completing a synthesis of existing ISRA data on cereals production and marketing in the NRBAR project zone, completing an existing unit cost study for ISRA's research activities, including the services of M. Hanibal Muhtar as a TDY, and assisting with the study of research impact in BAME.

The activities of the CID NRBAR Coordinator, the CID Deputy Director responsible for NRBAR, and other U.S. based project support staff is described in the report "Report on U.S. Based Activities of the NRBAR Project for the Period July 1, 1992 to December 31, 1993", and has focused on management, administrative and logistical support, summarised as follows:

- (y) recruitment: (1) was completed for the Financial Advisor, David Holmes, from Howard University, and for the Project Administrator, Anne Williams Sidibé, (2) was completed for the monitoring and evaluation TDY, Bill Roberts, from Tennessee State

University, (3) was completed for John Sanders of Purdue University, and (4) further short-term consultants are currently being recruited in the areas which include:
Gender Analysis of Natural Resources Technology
Geographical Information Systems
Agricultural Research Micro-Economics
Agricultural Research Impact
Agricultural Research Priorities
Social Marketing and Public Relations,

(z) logistics: Shipping of unaccompanied air freight, sea freight, and personally owned vehicles was arranged for long-term employees. Travel arrangements for long-term staff and their families were made. Procurement and testing of 10 computers was completed at OSU, and these, together with associated equipment arrived in Dakar in May,

(aa) procedures manual: Dr. Kearns worked with the Project team to develop a first draft of a procedures manual during a trip to Dakar in January/February, 1993,

(ab) technical backstopping: Technical information relevant to the project was collected and sent to Senegal in the areas of: research impact indicators, monitoring and evaluation, small-farm extension, farmer participation in research, women in development, farming systems in Senegal, ethnographic information on Senegal, and rural development in Senegal,

(ac) networking: (1) contact is being maintained with all project collaborators through distribution of biannual reports, annual workplans, monthly updates and by letter, telephone and personal meetings, and institutional profiles are being developed at OSU for each collaborating institution, and (2) David Acker visited Catholic University Leuven and INTSORMIL to assist with GIS and ISRA's cereals seeds for research trials, respectively,

(ad) visits to Senegal: (1) the CID NRBAR Coordinator visited Senegal in May, primarily to assist with the long-term training plan, (2) Rochelle Rainey, CID NRBAR Administrative Assistant, visited Senegal in November/December for computer systems and grants management activities, and (3) a CID early evaluation team is expected to visit Senegal in the first quarter of 1994 in conjunction with the Annual Joint Review,

(ae) contracting: (1) subcontracts with Howard University, DAI, Tennessee State University and Oregon State University were finalised, (2) subcontracts developed under the Collaborative Research Grants were processed at OSU, and (3) necessary financial and management reports were compiled and sent to the USAID Contracting Officer,

(af) participant training: (1) placement and administration of 14 long-term participant trainees has begun, with 4 Ph.D. students already in place,

(ag) communication: constant communication is maintained with the ISRA/NRBAR office, in order to expedite the above tasks.

Additional tasks performed by Oregon State University, the Consortium for International Development, Howard University, Development Alternatives, Inc. and Tennessee State University in support of the NRBAR Project were:

- contract negotiations in Washington DC in July, 1992, between USAID and CID, together with a meeting with Julius Coles, Senegal Mission Director to discuss the project and the Mission's philosophy on project management,
- an initial orientation of long-term TA staff in Washinton DC in August, 1992,
- a preliminary visit to Senegal by David Acker and the CID COP in early September, 1992, to initiate field activities, and
- the development of management tools, such as "a contract required approvals and notification checklist" to assist NRBAR managers.

Also, OSU made a number of contributions from its own resources to enhance project implementation and to support ISRA:

- collected Horticulture, Agricultural Economics, and Statistics journals for donation to ISRA libraries,
- donated 4 back-up printers and two typewriters for use in the NRBAR office,
- continues to pay for on-going language training for all long-term technical assistants utilizing non-project funds.

The above activities have been supported by participation in numerous meetings and the writing of numerous reports, as follows:

MEETINGS

Apart from the continuing informal technical and administrative meetings between project collaborators, a number of formal project meetings were held during the period, as follows:

WEEKLY

A weekly coordinating meeting was held between the CID COP and the USAID Project Officer.

MONTHLY

Coordination meetings were held between the ISRA Scientific Director, the USAID Project Officer and the CID COP, with a frequency of more than once per month. A TA meeting was normally held each week.

LAUNCHING WORKSHOP

This was successfully implemented during 21-23 January.

U.S. SIDE MANAGEMENT TEAM MEETING

The annual management team meeting of the U.S. side was held as planned on 28 and 29 July at Oregon State University.

PROJECT IMPLEMENTATION REVIEW (PIR) MEETINGS AT USAID

Compiled the PIR together with the USAID Project Officer in April.

USAID PROJECT COMMITTEE MEETINGS

Provided input to four USAID Project Committee meetings.

ANNUAL JOINT REVIEW

This is being arranged for the first quarter of 1994.

AUDIT MEETINGS

These have not yet been held.

TDY MEETINGS

For the five TDYs, the CID COP participated in initial planning meetings and in a final presentation meeting with ISRA/USAID.

OTHER MEETINGS

Planning meetings were held with KIT and INTSORMIL, and with NRI (represented by the British embassy/Dakar)

REPORTS

MONTHLY REPORTS

NRBAR Monthly Reports have been produced in English and in French, and distributed to all collaborators for each month from October 1992 to December 1993. The Project Administrator has compiled separate monthly financial reports of FCFA expenses, and these are sent directly to OSU by courier, for incorporation into the CID Monthly Financial Report for the project. Copies of the CID Financial Reports have been sent to USAID/Dakar.

MONTHLY COORDINATION REPORTS

The CID COP has compiled a report of the proceedings of each monthly coordinating meeting.

USAID ADMINISTRATIVE DOCUMENTATION

Assisted with drafting and submitting the necessary project documents to USAID for project implementation actions, including the contract amendment for computer purchases.

TRIP REPORTS

When TAs travel overnight on project business, they have written trip reports.

PROCEDURES MANUAL

This (ISRA NRBAR Document 93/4A) has been compiled and approved by USAID; a French translation has been finalised.

BIANNUAL REPORTS

This is the second Biannual Report (ISRA NRBAR Document 94/2A), which was preceded by the first Biannual Report (ISRA NRBAR Document 93/5A).

PERIODIC PROGRESS REPORTS

A project summary (ISRA NRBAR Document 93/1) and a report of the launching workshop (ISRA NRBAR Document 93/2) have been written, as well as short Progress Reports dated 19 November, 1992, and 30 June, 1993. An updated Project Summary (ISRA NRBAR Document 94/1) was recently written.

REPORTS OF INSPECTION VISITS

Reports of the April and September ISRA/USAID inspection visit were written.

PROJECT IMPLEMENTATION REVIEW (PIR) REPORTS

Written contributions were made by CID NRBAR staff to the April PIR.

INVENTORY AND PROCUREMENT REPORTS

An inventory report was compiled and submitted to ISRA and USAID. The Annual Report of Government Property in Contractor's Custody will be prepared in conjunction with the next inventory. The Commodity Procurement Plan for the life of the project will also be prepared in the next six months.

TRAINING REPORTS

Progress of participants in short and long term training will be reported as part of the Biannual Reports.

WORKPLANS AND BUDGETS

The 1993 workplan (ISRA NRBAR Documents 93/3 and 93/3A) was completed in February, following adequate review by ISRA, USAID and all collaborators at the Launching Workshop.

TRAINING PLANS

A NRBAR long-term training plan, covering the life of the project, was developed in May and approved by USAID, and the compilation of an initial NRBAR short-term training plan is planned for October.

At least 95% of the effort of the COP/RP and of the Project Administrator has been spent on project support activities, as detailed above. The equivalent levels of effort in the area of project support for each of the Financial Advisor, Outreach Advisor and the Natural Resources Planner were approximately 30%.

There have been no substantial difficulties to date in implementing the project support program.

Project support activities for the period January to June, 1994, will continue with the major tasks initiated in 1992 and 1993. A local grants assistant administrator will be hired in early-1994 to manage the NRBAR Grants programs.

7. PROJECT RESOURCE COMPONENTS

In order to achieve project objectives through the above programs, the project has been invested with seven types of resources. Progress on the use of each type of resource is summarised below:

Ia. RESEARCH PROGRAM SUPPORT: COLLABORATIVE RESEARCH GRANTS PROGRAM

In view of the priority need for ISRA to establish appropriate natural resources management research trials for the 1993 season, the emphasis to date has been on developing the "Collaborative Research Grants" program and the "Grants for Research in Senegal" program.

Policies and protocols for the collaborative research program have been developed, and have been put into operation. ISRA has awarded collaborative research grants to three teams consisting of both ISRA researchers and non-governmental organisations to undertake natural resources technology research. These processes were finalised at an ISRA NRBAR grants workshop held in June 1993. The period of each grant was fixed for July 1993 to December 1996, and the levels of funding were fixed as follows (at an exchange rate of \$1 = 250 FCFA):

RODALE 6,987,750 FCFA / ISRA 11,168,250 FCFA,
WINROCK 6,424,570 FCFA / ISRA 12,325,500 FCFA,
OSDIL 14,030,500 FCFA / ISRA 4,988,500 FCFA.

Proposals for the 1994 program have been drafted, and the Grants Committee will meet in January 1994 to finalise the 1994 program.

Progress to date on the three programs may be summarised as follows:

GRANTEES: RODALE, ISRA

PROJECT TITLE: VALORISATION DES RESSOURCES NATURELLES

Principal investigators: Madiagne Diagne (ISRA), Aminata Badiane (ISRA), Saliou Diangar (ISRA), Collaborating principals: Amadou Makhtar Diop (RODALE), Amadou Diouf (RODALE)

OUTLINE DESCRIPTION/OBJECTIVES

There are three major objectives of the RODALE interventions: Improvement of efficiency of use of animal manure, the use of improved compost, and the increased use of integrated cropping techniques.

WORK ACCOMPLISHED TO DATE

RODALE has been working in four villages: Ndiamsil, Nioro, Baback, and Diofor. One of the highlights of their approach is the use of farmer inter-village exchanges for the transfer of information. Farmers are transported between villages in order to share their experiences with others and discuss the value of the new techniques which they have learned. In Bambey, Ndiamsil, and Nioro, RODALE initiated and carried out activities of training and demonstration to encourage the use of organic material for soil improvement. Intercropping methods were promoted in Ndiamsil, Baback, and Diofor. Cattle fattening was carried out (for the secondary purpose of manure production) in Ndiamsil and at Baback. RODALE also organizes meetings for visits of other development agencies for the benefit of its farmer participants: these have included visits from SAFGRAD, Réseau MII, ROCAFREMI, and Christian Children's Fund.

GRANTEES: OSDIL (ORGANISATION SENEGALAISE POUR LE DEVELOPPEMENT DES INITIATIVES LOCALISEES), ISRA

PROJECT TITLE: PROJET USAID- ISRA/NRBAR-OSDIL

Valorisation des Technologies Agroforestieres Mises au Point par la Recherche et Transfert en Milieu Réel

Principal Investigators: Malaïny Diatta (ISRA/DRPF), Principal Collaborators: Ousseynou Diop and Amadou Fall, OSDIL)

OUTLINE DESCRIPTION/OBJECTIVES

The major objective of the project is the support of farmers in researching methods to improve their management of natural resources, in particular soils and trees, for improved performance of their agricultural production systems. A secondary, but equally important objective, is the improved circulation of information and conditions of work between rural peasants and rural development actors such as NGO's, and research institutions.

WORK ACCOMPLISHED TO DATE

OSDIL is currently active in Loul-Sessene, Nguessine, and Dack, three villages in the arrondissement of Fimela, in the Fatick region. To date, they have organized numerous farmers' meetings to discuss project start-up and implementation, and to transfer information regarding methods being employed. They have also achieved an interesting collaboration: in addition to a work contract with the villages that participate, they also have a work contract with the local C.E.R., which is an interesting approach worth monitoring in terms of the cooperation that their project possibly receives as a result of this. They have established a rehabilitated garden plot at Loul-Sessen with citrus trees as well as alley cropping combined with wind breaks. They also have at Loul-Sessen a forestry perimeter for the regeneration of salty soils; some of the plot has already been exploited for rice production in small measures. There are also womens' garden plots in Nguessine and at Dack.

OSDIL started with an interesting hypothesis: that women's gardens were an appropriate target for initiating forestry activities due to existing habits of water management, and the interest that women in the area traditionally have had for marketing garden crops. So far, the project has enjoyed fairly good participation. OSDIL hopes that next year the men of these villages will respond to the observed successes of the women's plots and employ some of the techniques on large farm plots, specifically, for cereal production.

GRANTEES: WINROCK, ISRA

PROJECT TITLE: Projet USAID-NRBAR-WINROCK: Amélioration de la fertilité des sols

Principal investigators: Phillipe Robert (ISRA), Aminata Badiane (ISRA), Collaborating principals: Alphonse Faye (Winrock), Sarah Workman (Winrock), Lamine Niang (Winrock)

OUTLINE DESCRIPTION/OBJECTIVES

The objective of the WINROCK interventions is improvement of soil fertility. Secondary objectives include the widespread use of live fencing and windbreaks among cooperating farmers, and an improved understanding of causal relationships between the two. During the year, monitoring trips were accomplished with great regularity, in general, Winrock employs an intensive monitoring approach. It can be said that Winrock has also contributed to the strengthening of local farmers' institutions through this intensive monitoring approach, which allows numerous opportunities for exchanges of information between Winrock staff and participating farmers.

WORK ACCOMPLISHED TO DATE

During the last quarter alone, nine trips were made to nine villages where NRBAR activities are underway regarding soil fertility. Winrock has ongoing NRBAR related activities in Thiès, Bambey, and Diourbel departments, in the villages of Baback, Keur Sidy Mbengue, Ndiakane, and Diakel Dick. They have set up pilot research plots, established live fence programs, evaluated millet seed production parcels, and conducted training in composting. They have an effective methodology for village level discussions and training, and discuss expected outcomes for each activity introduced from the beginning.

In Baback, 22 men signed up to establish fences, and received manioc cuttings and loans. These cuttings are used as an incentive to encourage participation, and the approach is an interesting one: farmers initially concentrate on the plantings and the fence is secondary. As time goes on, the importance difference that the fence makes is observed first hand and adopted as a useful technology. 26 villages were trained in compostage an soil fertility during the year.

Ib. RESEARCH PROGRAM SUPPORT: GRANTS TO ISRA RESEARCHERS

Policies and protocols for the "Grants for Research in Senegal" program have been developed, and have been put into operation. ISRA has awarded research grants to four of its research teams to develop specific natural resources technologies. These processes were finalised at an ISRA NRBAR grants workshop held in June 1993. Proposals for the 1994 Grants for Research in Senegal program have been drafted, and the Grants Committee will meet in January 1994 to finalise the 1994 program.

Protocols and proposals for appropriate site studies and sabbaticals will be developed in 1994.

Progress on these Grants projects can be summarised as follows:

Proposal Title	Study on the agricultural utilization of smoked fish scales as a organic matter soil amendment to soils of Senegal.
Principal Researcher	Mamadou NDIAYE ISRA/Céréales Bambey
Associate Researcher	Désiré Yandé SARR, ISRA/GRNSP Kaolack Mamadou SIDIBE, ISRA/BAME
Budget	1993: 2.332.000 CFA 1994: 2.596.000 CFA 1995: 2.475.000 Cfa
Description and Objectives	<p>The major objective is to valorize the smoked fish scales in order to improve the fertility of soils and increase productivity of cereal cropping systems (maize in particular), et to evaluate the socio-economic impact of its agricultural exploitation.</p> <p>Objectives:</p> <ol style="list-style-type: none"> 1. An appreciation of the perception of the populations on the fertilizer capacities of fish scales. 2. An evaluation of the potential availability of the scales. 3. An evaluation of the nutrient content of the scales. 4. Determine the effectiveness of the scales on cereal production in relation to nutrient and organic matter additions. 5. Study the profitability of the utilization of the scales 6. Evaluate the economic impact on the revenue of the farmer.
Accomplishments	<p>Exploratory Survey has been conducted to determine:</p> <ol style="list-style-type: none"> 1. the steps of scale production 2. the organization of the production et the costs of transformation 3. the price of fish scale sales 4. estimation of availability 5. utilization of by products
Results to Date	A deeper knowledge of the aspects of production of fish scales. Village use survey.
Future Program	Apronomic study on the effects of the scales on cereal yields. Economic analysis of profitability. Collaborative scientific liaisons with development agents (NGOs).

Proposal Title	Study of the impact of research: The case of the Unités Expérimentales de Thyssé-Kaymor-Sonkorong et Koumbidia.
Principal Researcher	Désiré Yandé SARR ISRA/GRNSP Kaolack
Associate Researchers	Matar GAYE, ISRA/GRNSP Kaolack Mamadou SIDIBE, ISRA BAME
Budget	1993: 1.9000.000 CFA
Description and Objectives	<p>L'Institut Sénégalais de Recherches Agricoles has introduced through the project Unité Experimental, different technologies to improve production, increase intensification, improve soil conservation and thereby increase the technologies available to farmers.</p> <p>This study proposed to realize three principal objectives:</p> <ol style="list-style-type: none"> 1. evaluate the actual level of adoption of the introduced technologies by the project, especially those based on natural resource management. 2. identify the reasons for adoption or non-adoption; 3. evaluate the impact social and economic impact produced by the project a the level of the villages used.
Accomplishments	A field study has been completed in the areas of Koumbidia, and the team of surveyors are presently working in the Unité Expérimental de Thyssé-Kaymor-Sonkorong.
Results	The final report is awaiting the completion of the field studies and statistical analysis.
Future Program	Statistical analysis and interpretation of the results.

Proposal Title	Influence of a new inventory of techniques on the conservation of soils by farmers in the plateaus of lower Casamance.
Principal Researcher Associate Researchers	Mankeur FALL, ISRA/GRNSP/Zig Alioune FALL, ISRA/GRNSP/Zig Souleymane BADIANE, ISRA/DRPF/Zig
Budget	1993: 2.711.500 CFA 1994: 2.662.000 CFA 1995: 2.495.000 CFA
Description and Objectives	<p>The aim of this research activity is to refine technologies in soil conservation and environmental improvement to minimize the effects of degradation that are presently being used by farmers. The objectives are:</p> <ol style="list-style-type: none"> 1. Contribute to the increase in cereal production by putting in place improved technologies concerning the soil fertility management that are ready to be used by farmers. 2. Develop techniques of soil conservation and stabilization on the plateau and minimize soil erosion by water on hillsides. 3. Propose a methodology to intensify the cropping systems in relation to the management of village lands.
Accomplishments	A field trial for the conservation and stabilization of soils has been put in place on the Djibélor station with an objective to determine the increase in soil organic matter through turning under green manures (glicicidia).
Results	Chemical analyses of field soils.
Future Program	Development of on-farm trials during the upcoming dry season. Apply the results of first year research via on-farm trials

Research Project Title	Valorization of the potential of pasturage for the development of improved cereal cropping systems in the sub-humid zone of Sénégal; the Haute Casamance.
Principal Researcher	Mouhamadou-Moustapha SISSOKHO ISRA/GRNSP/Kolda
Associate Researcher	Adama FAYE ISRA/GRNSP/Kolda Alexandre ICKOWICZ Mour GUEYE ISRA/PDCSOHC/Tamba
Budget	1993: 2.502.500 CFA 1994: 2.502.500 CFA 1995: 2.502.500 CFA
Description and Objectives	<p>The selective stabling of animals in the dry season and the supplemental feeding strategy has introduced in this zone a model of intensification and agricultural integration with livestock. However, the economic impact of this strategy is still not known and needs additional study.</p> <p>The specific objectives are:</p> <ol style="list-style-type: none"> 1. evaluate the technical feasibility and the profitability of technologies proposed; 2. evaluate the economic impact of the innovations tested and evaluate the contribution of the animal component on the revenues. 3. evaluate the impact of such innovations on the management of the communal spece.
Accomplishments	<p>Initial survey:</p> <ol style="list-style-type: none"> 1. identify village for collaboration; 2. make and inventory of the resources available (land use, demographic, land use pressure, description of animal habitat)
Results	
Future Program	Sensitize farmers in the villages to the research subject and their roles. Put in place the field research

II. SUPPORT FOR ISRA'S NATURAL RESOURCES PROGRAM

These funds are expected to be released directly to ISRA by USAID in 1995 following ISRA's financial certification. The process of certification has just begun, in conjunction with the Ernst and Young work with ISRA on financial management, and following the arrival of the NRBAR financial advisor in June, 1993. An assessment of direct/indirect research costs and a natural resources plan for ISRA are also needed prior to release of funds, and these will be drafted in 1994. For the 1994 season, in view of the need to increase the level of natural resources management research activities as soon as possible, a method of temporarily increasing the level of funds in the Grants for Research in Senegal category has been developed and agreed with ISRA and USAID.

III. LINKAGES TO INTERNATIONAL RESEARCH INSTITUTIONS

These funds are expected to be released directly to ISRA by USAID in 1995 following ISRA's financial certification. ISRA is presently drafting proposals for appropriate visits and for developing institutional linkage structures.

IV. PERSONNEL

All long-term ISRA and CID personnel have been recruited and assigned. In particular, ISRA nominated the 5 counterparts for the CID personnel in December, 1993. CID and ISRA personnel have established rapport and are forming productive collaborative teams in order to implement project activities. Communications and rapport between the CID/ISRA team and USAID have also been well established. Five short-term consultants (TDYs) have been employed to date and these have played crucial roles in establishing the ISRA research impact study program, in establishing a system for Grants management, in developing the NRBAR procedures manual, in the NRBAR long-term training program, and the NRBAR monitoring and evaluation plan:

-Name and Dates of Consultant: Rochelle Rainey, 21NOV93 - 16DEC93

ISRA Unit responsible: Pape Sall, ISRA Grants Manager

Area of Work: Computer Systems and Grants Management

Accomplishments: recommended changes to, and developed a critical time path for, administration of the Grants and Subcontracts Programs, created and organized administrative documentation and procedures, and performed computer installation, repair and training tasks.

-Name and Dates of Consultant: John Sanders, 10OCT93 - 23OCT93

ISRA Unit responsible: DS/BAME

Area of Work: Evaluation of ISRA's research impact

Accomplishments: developed economics methodology for the measurement of impact, trained four ISRA researchers in utilization of the technique, completed a workplan with ISRA for a series of five commodity impact studies, assisted ISRA with producing a preliminary report on methodology, identified data requirements for impact studies for four cereals.

-Name and Dates of Consultant: Bill Roberts, 27MAY93 - 22JUN93

ISRA Unit responsible: CG

Area of Work: Monitoring and Evaluation, Impact

Accomplishments: drafted M/E plan for NRBAR, assisted with ISRA M/E planning at CG, assisted with planning of ISRA historical impact study, and related work.

-Name and Dates of Consultant: David Acker, 16MAY93 - 25MAY93

ISRA Unit responsible: DS

Area of Work: NRBAR Training Plan for Long-Term Trainees, project administration

Accomplishments: interviewed and prepared training dossiers for 17 candidates, revised NRBAR Long-Term Training Plan, assisted with project administration.

-Name and Dates of Consultant: Jean Kearns, 19JAN93 - 4FEB93

ISRA Unit responsible: SG

Area of Work: Procedures Manual, NRBAR start-up administration

Accomplishments: produced a first draft NRBAR Procedures Manual, participated in the séminaire de démarrage and in initial administrative activities of project.

V. TRAINING

ISRA has developed a life-of-project training plan for NRBAR long-term participant trainees, which details criteria for candidate selection, training policies, description of the selection process, an implementation plan with budget, and detailed dossiers for each candidate for M.S. and Ph.D. training. USAID has approved the plan, and the following 5 Ph.D. and 9 M.S. candidates were selected:

-Name of Candidate and ISRA unit: Samba Sall, DRCSP

Subject of training: Ph.D., Agricultural Economics

-Name of Candidate and ISRA unit: Alioune Fall, DRCSP

Subject of training: Ph.D., Agricultural Engineering (Soil/Water)

-Name of Candidate and ISRA unit: Ibrahima Thomas, DRPF

Subject of training: Ph.D., Forestry Management

-Name of Candidate and ISRA unit: Abdoul Aziz Mbaye, DRCSI

Subject of training: Ph.D., Virology

-Name of Candidate and ISRA unit: Mamadou Diop, DRSPA

Subject of training: Ph.D., Animal Science

-Name of Candidate and ISRA unit: Mamadou Lô, DRCSP

Subject of training: M.S., Agronomy

-Name of Candidate and ISRA unit: Mour Gueye, DRCSP

Subject of training: M.S., Agronomy

-Name of Candidate and ISRA unit: Mamadou Lamine Sonko, DRCSP

Subject of training: M.S., Livestock Production

-Name of Candidate and ISRA unit: Abdourakhmane Tamba, DRPF

Subject of training: M.S., Forest Management

-Name of Candidate and ISRA unit: Mariama Barry Gerard, DRPH

Subject of training: M.S., Freshwater Fisheries Economics

-Name of Candidate and ISRA unit: Moustapha Kebe, DRPH

Subject of training: M.S., Natural Resources Economics

**-Name of Candidate and ISRA unit: Tanou Baba Galle Ba, DRCSP
Subject of training: M.S., Soil and Water Management**

**-Name of Candidate and ISRA unit: Mohamadou M. Cissoko, DRSPA
Subject of training: M.S., Animal Science**

**-Name of Candidate and ISRA unit: Bassirou Diaw, DRPH
Subject of training: M.S., Fisheries and Meteorology**

Of the Ph.D. candidates, four have begun their studies, as follows:

**NAME: Samba Sall
UNIVERSITY: Kansas State University
FIELD OF STUDY: Agricultural Economics
DATE OF DEPARTURE: August, 1993
ESTIMATED DATE OF RETURN TO SENEGAL: mid-1997**

**NAME: Alioune Fall
UNIVERSITY: Michigan State University
FIELD OF STUDY: Agricultural Engineering
DATE OF DEPARTURE: August, 1993
ESTIMATED DATE OF RETURN TO SENEGAL: mid-1997**

**NAME: Ibrahima Thomas
UNIVERSITY: Oregon State University
FIELD OF STUDY: Forest Management
DATE OF DEPARTURE: September, 1993
ESTIMATED DATE OF RETURN TO SENEGAL: mid-1997**

**NAME: Mamadou Diop
UNIVERSITY: University of Nebraska
FIELD OF STUDY: Animal Science
DATE OF DEPARTURE: August, 1993
ESTIMATED DATE OF RETURN TO SENEGAL: mid-1997**

Abdoul Mbaye no longer wishes to be considered for the remaining Ph. D. position, and ISRA is in the process of formalising the selection of Boubacar Barry as a replacement. Barry has already completed part of the Ph.D. course in the U.S., and is expected to proceed as follows:

**NAME: Boubacar Barry
UNIVERSITY: Michigan State University
FIELD OF STUDY: Agricultural Engineering (Soil and Water)
ESTIMATED DATE OF DEPARTURE: June, 1994
ESTIMATED DATE OF RETURN TO SENEGAL: end-1996**

Of the Masters' candidates, only four (Bassirou Diaw, Mahamadou Sissoko, Mamadou Lo and Tanou Ba) are expected to become available to begin their studies in 1994. ISRA and CID are presently drafting a revised long-term training plan to propose the provision of alternative qualifications for the remaining candidates, in order to minimise the negative impacts of long training absences on the continuity of the ISRA research program.

In addition, there have been eight Short-Term Training/Conference events: (1) the January, 1993, launching workshop which successfully brought together all potential collaborators for two days to discuss the first annual workplan, (2) the May, 1993, training meetings between candidates for long-term training and NRBAR personnel which successfully established the basis for implementing the training plan, (3) the June, 1993, grants committee workshop which successfully finalised the grants protocols and selected grantees for 1993/94, (4) the 30th June, 1993, public exposition of ISRA's research results, which included a successful display of ISRA's work on natural resources technologies, (5) the September national research coordinating meetings which provided the basis for the 1994 ISRA research plan, (6) the October visit by the ISRA Scientific Director and the ISRA economics research coordinator to the International Centre for National Agricultural Research Systems (ISNAR), in order to establish a program of cooperation in the research planning area, (7) the November financial workshop, which achieved a consensus on ISRA's financial management plan, and (8) the December meeting of the ISRA Council of Administrators, which provided the basis for the 1994 administrative plan.

ISRA/CID is presently negotiating with two Senegalese educational institutions (ENSA and IST) for implementation of the women's B.S. program; ten candidates have been selected by these institutions and are awaiting funding.

VI. ISRA DIRECT SUPPORT

ISRA continues to provide the necessary physical support, and the necessary staff time and resources, to successfully implement the project.

VII. USAID DIRECT SUPPORT

Virtually all furniture and equipment has been supplied, the technology inventory study and the first phase of the financial management study have been successfully implemented, and all USAID project staff are in place.

8. FINANCIAL STATUS

The financial status of the project is summarised in the attached Expenditure Report (Table 8.1). Total project expenditures to 31 December, 1993, of \$2,153,961, equivalent to 14% of the \$15,672,714 contract budget, are at approximately the expected level for this stage of the project. Nevertheless, actual expenditures for the period to December 31, 1993 are 19% less than anticipated in the first Biannual Report, largely due to delays in training programs, TDY levels being at only 30% of the expected level, and delays in reporting expenditures. 57% of the obligated funding of \$3,758,000 has been expended.

Estimated expenditures on the CID contract for the calendar year 1994 and for the USAID financial year (OCT94-SEP95) are presented below in Table 8.2. These estimates are based on the original CID contract budget, the projected NRBAR program for 1994 and 1995 as described in workplans, and on the January 1994 devaluation of the CFA.

A CID contract modification was effected, to provide an additional \$55,000 funding for purchase of NRBAR computers and associated equipment. The total value of the CID contract has thus been increased to \$15,672,714.

TABLE 8.1 NRBAR CUMULATIVE EXPENDITURE REPORT, 31DEC93
IN THOUSANDS OF U.S.\$

CATEGORY	BUDGET AMOUNT	CUMULATIVE EXPENSES	BALANCE UNEXPENDED	PERCENT UNEXPENDED
SALARIES	1,666	303	1,364	82%
FRINGE BENF.	416	69	346	83%
ALLOWANCES	909	203	707	78%
TRAVEL, ETC	1,545	172	1,373	89%
COMMODITIES	267	85	182	68%
SUBCONTRACTS	4,254	459	3,795	89%
OTHER DIRECT	544	214	330	61%
RES. GRANTS	300	23	277	92%
TRAINING	3,083	151	2,932	95%
INDIRECT COST	2,689	476	2,212	82%
TOTAL	15,673	2,154	13,519	86%

TABLE 8. NRBAR FINANCIAL ESTIMATES FOR 1994/95

TABLE 8.2A

CATEGORY	ESTIMATED EXPENDITURES, BY QUARTER, IN '000 U.S.\$				TOTAL 1994
	1994 JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	
SALARIES	71	94	82	99	346
FRINGE BENF.	19	19	19	19	76
ALLOWANCES	43	43	43	43	172
TRAVEL, ETC	30	66	48	75	219
COMMODITIES	2	2	2	2	8
SUBCONTRACTS	137	167	167	167	638
OTHER DIRECT	23	23	23	23	92
RES. GRANTS	10	23	23	23	79
TRAINING	130	204	239	297	870
INDIRECT COST	78	107	108	125	418
TOTAL	543	748	754	873	2918

TABLE 8.2B

CATEGORY	ESTIMATED EXPENDITURES, BY QUARTER, IN '000 U.S.\$			
	1995 JAN-MAR	APR-JUN	JUL-SEP	TOTAL OCT94/SEP95
SALARIES	81	93	74	347
FRINGE BENF.	20	20	20	79
ALLOWANCES	51	51	51	196
TRAVEL, ETC	59	74	51	259
COMMODITIES	2	134	2	140
SUBCONTRACTS	174	272	272	885
OTHER DIRECT	24	24	24	95
RES. GRANTS	23	42	42	130
TRAINING	228	258	268	1051
INDIRECT COST	118	172	143	558
TOTAL	780	1140	947	3740