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MEMORANDUM

DATE: February 24, 1994

FROM: Omar A. Jallow, USAID/Banjul

SUBJECT: Project Assistance Completion Report: The Gambia Agricultural Research and Diversification (GARD) Project (635-0219)

TO: GARD Project Files

THRU: Bonnie A. Pounds, AIDREP

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1. Introduction:

Agriculture is the primary economic activity in the Gambia and crop production is mainly rainfed and depends on erratic rainfall that is concentrated in a short period (June-October) of the year. The Government of the Gambia (GOTG) has made some major efforts to improve agricultural production with assistance from donor agencies. For example, the Mixed Farming Project and the Soil and Water Management Project, both funded by USAID focussed on technologies for farmers to adopt.

However, there have been no major changes in land and labor productivity over the years despite the increased land area under cultivation during the mid 1980s. Some of the reasons for this decline are due to decreased and unreliable rainfall, low soil fertility and poor soil maintenance, inappropriate agricultural development policies and programs, and low awareness and limited use of labor-saving technologies such as animal traction or improved planting techniques. From a political perspective, the Gambia's effort to increase food production and crop diversification reflects a desire to reduce dependence upon a single crop (i.e.groundnuts).

Successful agricultural diversification implies that an increasing share of resources will be devoted to the production of commodities which are currently minor or non-existent in the Gambian farming systems. The success of efforts to increase production will depend in large part upon the availability of productivity increasing measures which can be readily adopted by the average Gambian farmer. Priority attention should be given to improvements which will increase the productivity of land and capital as well as labor.

USAID/Banjul 's strategy thus moved from one of supporting discrete research and production projects to a broader support of the small but vital agricultural research system. AID recognized that applied agricultural research must take place in a planned, sufficiently supported sequence if any of the other goals and institutional development supported by it and other donors are to be fruitful.

The Gambian agricultural research system before the GARD project consisted of a small core number of researchers (not all of whom devote full time to research) distributed among seven departments and

two ministries. Despite a lack of collaboration and cooperation across disciplines and departmental lines, the research system made some progress -- largely with support from externally funded projects. Promising techniques on the research stations which were ready for on-farm testing were identified. Accomplishments included the identification of NBC maize as a variety suitable for the Gambia, screening and selection of improved rice varieties, and advances in agronomic practices for groundnuts.

Despite these activities and accomplishments, agricultural research in the Gambia did not posses sufficient capacity to develop or adapt new technologies needed to improve farmer welfare and increase revenues. The reasons for this problem are: (1) the Gambia did not possess a research management system, (2) there was a lack of a comprehensive program geared to understanding the specific constraints and potential of its farming systems, (3) there was limited training and limited number of research personnel, and (4) there was an inability of the Gambia to support its research staff with adequate operating and maintenance funds and with physical infrastructure.

It was also concluded that the Gambia's weak revenue situation in the late 1980s will continue to deteriorate if agriculture cannot be improved. This improvement required a research organization that can generate useful technologies and have them adopted. However, creation of such an organization was blocked by insufficient revenues. It was within this framework that the Gambia Agricultural Research and Diversification (GARD) Project was designed and proposed to address.

The contract for the $18 million, 7-year GARD project was signed on June 29, 1985, with the University of Wisconsin at Madison (as the institutional contractor), the GOTG and USAID/Banjul with an extension possibility to 15 years. The long-term goal of the GARD project was to achieve food-self reliance in the Gambia. The project's purpose was to test, generate, and promote the farmer adoption of improved crop and livestock technologies that meet farmers needs and to expand and diversify the Gambia's agricultural economy. The Project's strategy was a two-pronged effort involving: 1) the long-term institutionalization of an effective, applied agricultural research system, and 2) the development, promotion, and adoption by farmers of improved agricultural technologies as early as possible.

The project consisted of five distinct but mutually supportive components as follows:
1) establishment of an Agricultural Research Management System (ARMS);

2) provision of long-and short-term training for Gambians in different agricultural disciplines;

3) provision of support to on-station and component research in selected crops, livestock, agroforesty, socio-economics, and water resources;

4) institutionalization of the farming systems research and extension approach into the agricultural research program, and;

5) design of technology promotion activities for farmers at large, including training of field workers, monitoring and feedback of results, and financing for specific pilot promotional efforts.

In January 1991, a two-year extension of the GARD project implementation contract was concluded between USAID and the University of Wisconsin. The objective of the contract extension was to bo consolidate project gains and to establish a systematic phase-out of project activities. The PACD of June 30, 1992 was extended for six months (June 30-December 31,1992) to permit the completion of four project activities: (1) training, (2) adoption of the Program Budgeting System (PBS) by the Ministry of Agriculture and the Ministry of Natural resources and the Environment; (3) the procurement of computer equipment for MNRE in the adoption of PBS, and (4) soil testing.

The extension of the PACD allowed the execution of these activities with no additional costs. By December 30,1992, the GARD project was successful in establishing an agricultural research system, had trained many Gambians in different agricultural disciplines, installed a program budgeting system in the MOA and promoted crop and livestock technologies to farmers.

2. Project Status as of December 31, 1992:

The complete University of Wisconsin-Madison team left the Gambia by late June 1992. Two advisors returned for short periods during the PACD extension period. The Contractor's final end-of-project report has been received by USAID/Banjul. All project activities (procurement of commodities, construction, technical assistance and training) have been completed.

3. Summary of Contributions:

USAID agreed to provide technical assistance ($4.6 million), training ($4.0 million), commodities and construction ($1.1 million), and contingency/other costs ($8.3 million) for a total LOP grant of $18 million for 7 years. The actual obligated amount was $16.1 million made up of technical assistance ($11.9 million), training ($1.9 million), commodities and construction ($2.1 million) and contingency/other costs ($0.2 million).

The GOTG agreed to provide counterparts, office space and office furniture for an estimated total of $1.5 million. By the end of June 1992, it was estimated that the GOTG provided counterpart contributions valued at about $1.3 million during the seven years of the project.

4. Project Achievements:

There were a number of successes in the project. These are discussed below in terms of the completed five project outputs.

Output 1: Establishment of an Agricultural Research Management System (ARMS) that would set agricultural research priorities based on farmers' needs, researchers' recommendations, and GOTG policy objectives.

The ARMS has been established and it consists of:

a) a National Agricultural Research Board (NARB);

b) a multi-disciplinary Task force to formulate research programs in accordance with priorities specified by NARB;

c) an operational Program Budgeting System (PBS), and;

d) a Technical Secretariat to serve NARB.

An ARMS manual which contains procedures and guidelines to implement GOTG's agricultural research and extension activities has been published. Research proposals are evaluated by NARB according to guidelines set forth in the ARMS manual, farmer constraints statement and national agricultural research policies and priorities. Modification of a research proposal if any are based on results as presented at Agricultural Research Review meetings. Research programs in the Department of Agricultural Research (DAR) and Department of Livestock Services (DLS) now follow a medium-term plan. The PBS is used to monitor progress and program expenditures.

Output 2: Technical Secretariat established and functioning, screens and reviews research proposals and advises ARMS on research investments.

A Technical Secretariat has been established to serve the NARB in the review of research proposals submitted for funding. However, a full-time research planner is still being recruited for the Secretariat. The Director of the DAR has acted in this position throughout the Project.

Output 3: Promising component research in crops, livestock, agro-forestry and socio-economic resources is being implemented.

More focussed and targeted research proposals have been carried out. Soil calibration tests have been conducted at six different locations and a plant nutrient survey of maize, millet and groundnuts has been conducted. This information was used as a baseline data for work on soil fertility management. Some 68 on-farm trials, most of which involved evaluation of improved varieties of different cereals, have been conducted. A cropping system map has been prepared.

Output 4: Links with International Agricultural Research Centers (IARCs) and regional research centers established.

Linkages have been established with international, regional and national agricultural research centers through networking activities. Over 25 Gambian scientists made thirty-three trips to fourteen different research institutes. However, none of these trips resulted in the signing of a formal, collaborative

contract between the Gambian research service and a research institute.

Output 5: Institutionalization of on-farm research, including linkage to extension, NGOs and the establishment of a functioning Farmer Innovation Technology Testing (FITT) program and production of the annual farmer constraints statement.

A cropping systems map and a farmer constraints statement have been developed. A FITT concept was also developed and unanimously accepted by the Gambian agricultural organizations, but its implementation was constrained by: a) insufficient commitment by researchers, b) inadequate inputs, c) insufficient involvement of DAS staff, and d) lack of institutional support from NGOs.

Output 6: Nine research scientists trained to M.S. level and five trained to B.S. level employed in research programs. Additional agriculture research personnel who have been trained in management and various agricultural disciplines through short-term training (in-country and off-shore sites) are employing their skills in the project.

Under the project, twelve B.S. degrees (2 female) and seven M.S. degrees were earned (1 female). Fifteen (or 75%) have returned to MOA service and only three of the 19 long-term participants have not settled into agriculture-related positions in the Gambia following their training. Seventy-five short-term training programs, 1,180 in-service programs and twenty-eight networking programs were completed. In addition, short-term training was provided in nine African countries for 22 research scientists. Short-term technical training in the U.S. was provided for forty Gambians. In-county training was also provided for 1,180 persons in forty-eight activities. Fields of training included agro-forestry, animal traction, livestock research, agricultural statistics, crop research, soils, agricultural extension and research-extension linkages.

Output 7: Promotional programs developed and implemented for promising agriculture research results in coordination with appropriate extension organizations.

A manual on guidelines for conducting promotional campaigns in the Gambia has been prepared and utilized. More than eight promotional programs have been developed and promoted in collaboration with NGOs in the Gambia. About seven Memorandums Of Understandings (MOUs) between the GARD project and NGOs were signed. These NGOs cooperated in disseminating and promoting ram fattening, groundnut seed dressing, use of row markers, and the utilization of cowpeas and sesame in nutritious meals. The ram fattening for Tobaski resulted in the development of annual livestock shows and increased ram sales.

5. Extent to Which the Project Solved the Original Problem:

The GARD Project has solved original problems in agriculture research. Considerable progress has

been made in achieving the goals of institutionalizing national agricultural research. The project has tested, generated and promoted improved crop and livestock technologies that meet farmers needs and expand and diversify the agricultural economy. Farmers have utilized most of the technologies promoted and the Tobaski ram fattening is a particular success.

6. Project Final Adjustments:

At this point, much of the original anticipated project inputs have been delivered. No changes in the project's design and continuation by the GOTG are warranted or appropriate at this time. The decision to end the project after seven years was due to a modification of USAID/Banjul's strategy for the Gambia, and the belief that any further build-up of the MOA's agricultural research operation would not be sustainable.

7. Appropriateness of Remaining Conditions and Covenants:

Although all the condition precedents and covenants have been met, the post of Research Planner in the Technical Secretariat remains vacant. The newly created National Agricultural Research Institute (NARI) is advertising the post again.

8. Remaining Reporting Requirements:

None

9. Continuing/Post-Project USAID Monitoring:

USAID will not be directly monitoring agricultural research because it is outside the Mission's strategic objective. However, the Mission will continue to monitor PBS use in the MOA and MNRE, and some of the technologies promoted under the project which will be of relevance to the Mission's new Agriculture and Natural Resources (ANR) program.

A remaining issue is monitoring of the case of Abdul-Azziz Samba on the GARD Project. This is the alleged fraud involving the sum of $8,500 by Samba who was locally hired under the project. The case has continued since August 1991 and is still in the Banjul courts.

10. Review of Data collection Results and Evaluations:

Significant data collection efforts were conducted as part of the GARD Project. These were: (1) the national agricultural sample survey (NASS) report which has been compiled in a NASS Summary System Procedures Manual; (2) bibliography of Gambian Agricultural Development, and (3) cropping systems map and farmer constraints statement. The National Agricultural Data Center not only

produced reliable statistics on area, yield, and production but also provided for the first time, detailed information on crop production, cultural practices, demographics and gender information. This center has become recognized by other GOTG agencies, NGO's and development agencies as the most reliable source of agricultural information.

A Project mid-term evaluation, performance audit of the project, a research policies and priorities statement, two district agricultural profiles, and an institutional assessment of the project have also been prepared. All these have helped the GOTG's agricultural research management system to function better.

11. Summary of Lessons Learned

a) USAID/Banjul should be able to monitor government counterpart contributions. The GOTG should have a system that can be monitored in terms of budgeted amounts and expenditures. The Program Budgeting System (PBS) is a system that when fully in place, can make this happen.

b) The purpose of the project should be commonly understood by the contractor and USAID. An accurate statement of the interpretation of the purpose will make project implementation and goal measurement easier.

c) The contractor institution should be familiar with AID procedures and regulations, and the terms and conditions of the contract and the project agreement. All the text in the contract clause attachments should be made available to the contractor at the start of the project.

d) Project local expenditures reporting should be accurate, timely and in accordance with AID policies and procedures.

e) A system should be designed early in the project to adequately control project expenditures and an inventory management system with checks and balances should have been instituted earlier in the project.

f) An agricultural research management system that features feedback and participation from the end users of technology can provide appropriate and useful technologies to farmers.

g) Farmers will readily adopt new technologies once their relevance has been proven to them and the appropriate incentives exist.

h) Farmer constraints can and should be identified and updated through proper research-extension-farmer linkages.

i) Prioritization of research program depends on: 1) proper identification of constraints (through linkages with farmers and extension); and 2) a multi-disciplinary team approach involving scientist, administrators, and policy makers to address those constraints

j) Regarding the institutionalization of the PBS, it was learnt that for a new system to have a lasting and growing effect, high-level support and/or responsibilities for that system must be present in the recipient country.

k) The involvement and support of many actors at various levels can contribute to the institutionalization of an agricultural research program that has a broad base of support within and outside government.

l) Training is an important element in capacity building provided that the training received is relevant and appropriate, and there are appropriate job opportunities and incentives available for returnees.

12. Project phase-out activities:

Eleven houses in Mile seven Banjul and Sapu, fourteen vehicles and five generators have been handed over to the Ministry of Agriculture (MOA) of GOTG by December 31,1992. Two houses are being used (with the concurrence of MOA) by the institutional contractor under the ANR project.

Clearance: GCohen, ADO

FWitthans, PROG

MLEW, Cont

ATTACHMENT F - 1

GRANT AND COOPERATIVE AGREEMENT CLOSE OUT - COMPLETION STATEMENT
TYPE: GRANT OR COOPERATIVE AGREEMENT

*The words "Grant" or "Grantee" are substituted with the words "Agreement" or "Recipient" for the close out of a Cooperative Agreement.

1. GRANT NUMBER : 698-0467-G-00-1001-00 2. LAST MODIFICATION NO: _____

3. GRANTEE : WORLD WILDLIFE FUND/ BIODIVERSITY SUP. PROG 4. ADDRESS: WORLD WILDLIFE FUND/BIODIVER SUPPORT PROGRAM (WWF/BSP) 1250 24TH STREET, NW WASHINGTON, DC 20037, U.S.A.

5. GRANT AMOUNT : $250,000.00

6. COMPLETION DATE: NOVEMBER 30, 1992 7. TECHNICAL OFFICE: USAID/BANJUL

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I. TECHNICAL OFFICE:

Has the Grantee:

	Yes	No	N/A
a) completed all requirements, terms and conditions of the Grant?	X		
b) properly disposed of all residual property and other nonexpendable property?			X
c) disposed of all classified material? (AID HB 6)			X
d) submitted a final patent report?	X		
e) submitted a final copyright report?	X		

BASED ON THE FOREGOING, I RECOMMEND THE CLOSE OUT OF THIS GRANT:

Technical Officer's Printed Name: GARY R. COHEN, ADO

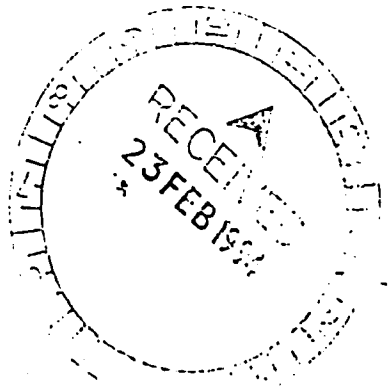
Signature : Gary R. Cohen

Date : February 22, 1994

I. CONTRACT SPECIALIST

a) Has a final audit been done:
(Applicable to grants over $500,000)

	Yes	No	N/A
1. Are all questioned costs resolved?			X
2. Has the final price been established?	X		
3. Has the amount due the Grantee been settled?	X		
4. Has the amount due the Government been settled?	X		



b) Has a Desk Audit been done:
(Applicable to grants of $500,000 or less)

	Yes	No	N/A
1. Are the direct costs acceptable?	___	___	X
2. Are any disallowed costs resolved?	X	___	___
3. Have the final indirect costs been determined?	X	___	___
4. Do the Grantee and A.I.D. agree on all disbursed, obligated, and claimed amounts?	X	___	___
5. If no, has appropriate action been taken to resolve any differences?	___	___	___

BASED ON THE FOREGOING, I RECOMMEND THE CLOSE OUT OF THIS GRANT FILE:

Contract Specialist's Printed Name: SEAN O'LEARY, EXO

Signature : Sean O'Leary

Date : 2/22/94

III. OFFICE OF FINANCIAL MANAGEMENT

	Yes	No	N/A
a) Has the final voucher, or "Request for Advance or Reimbursement (RAR)", or Financial Status Report been received?	X	___	___
b) Have all excess payment advances been recovered?	___	___	X
c) Have all unused funds been decommitted?	X	___	___

d) The total grant expenditure: 221,614.86 Total amount Decommitted 28,385.14

BASED ON THE FOREGOING, I RECOMMEND THE CLOSE OUT OF THIS GRANT FILE:

Controller's Printed Name: MARY E. LEW

Signature : [signature]

Date : 2/16/94

IV. GRANTS OFFICE

Based on the recommendations contained in Parts I through III, above, it is hereby determined that all required grant administration actions have been fully and satisfactorily accomplished.

Bonnie A. Pounds

BONNIE A. POUNDS, USAID REPRESENTATIVE
Contracting Officer

2/25/94
Date