

USAID CAMEROON

**EQUATORIAL GUINEA
AGRICULTURAL
DEVELOPMENT
PROJECT**

FINAL EVALUATION



PROJECT NO. 653-0001

PROJECT EVALUATION SUMMARY (PES) - PART I

Report Symbol U-447

1. PROJECT TITLE EQUATORIAL GUINEA AGRICULTURAL DEVELOPMENT			2. PROJECT NUMBER 631-0001		3. MISSION/AIDAV OFFICE USAID/CAMEROON
			4. EVALUATION NUMBER (Enter the number maintained by the reporting unit e.g., Country or AID/W Administrative Code, Fiscal Year, Serial No. Beginning with No. 1 each FY) 631-86-6		
			<input checked="" type="checkbox"/> REGULAR EVALUATION <input type="checkbox"/> SPECIAL EVALUATION		
5. KEY PROJECT IMPLEMENTATION DATES			6. ESTIMATED PROJECT FUNDING		7. PERIOD COVERED BY EVALUATION
A. First PFC-AG or Equivalent FY 81	B. Final Obligation Expected FY 82	C. Final Input Delivery FY 86	A. Total \$ 2,000,000	B. U.G.	From (month/yr.) Sept. 1983 To (month/yr.) Dec. 1985 Date of Evaluation Review Nov-Dec. 1985

B. ACTION DECISIONS APPROVED BY MISSION OR AID/W OFFICE DIRECTOR

A. List decisions and/or unresolved issues; cite those items needing further study. (NOTE: Mission decisions which anticipate AID/W or regional office action should specify type of document, e.g., design, SPAI, PFC, which will present detailed request.)	B. NAME OF OFFICER RESPONSIBLE FOR ACTION	C. DATE ACTION TO BE COMPLETED
1. Allow transfer certain commodities currently controlled by IHAP to the Cooperative Development Project (653-0002).	USAID	April 1986
2. Complete project close out proceeding as stipulated in Article IX "Special Provisions" in the IHAP Cooperative Agreement.	IHAP	July 1986

9. INVENTORY OF DOCUMENTS TO BE REVISED PER ABOVE DECISIONS

<input type="checkbox"/> Project Paper	<input type="checkbox"/> Implementation Plan, e.g., CPI Network	<input type="checkbox"/> Other (Specify): _____
<input type="checkbox"/> Financial Plan	<input type="checkbox"/> PIO/T	_____
<input type="checkbox"/> Logical Framework	<input type="checkbox"/> PIO/C	<input type="checkbox"/> Other (Specify): _____
<input type="checkbox"/> Project Agreement	<input type="checkbox"/> PIO/P	_____

10. ALTERNATIVE DECISIONS ON FUTURE OF PROJECT

A. <input type="checkbox"/> Continue Project Without Change
B. <input type="checkbox"/> Change Project Design and/or
<input type="checkbox"/> Change Implementation Plan
C. <input checked="" type="checkbox"/> Discontinue Project

11. PROJECT OFFICER AND HOST COUNTRY OR OTHER RANKING PARTICIPANTS AS APPROPRIATE (Name and Title)

Larry Dominessy, USAID	Joe Enos, IHAP
William Schillinger, USAID	John Conje, IHAP
Donald Kennedy, USAID	

12. Mission/AIDAV Office Director Approval

Signature <i>Mary H. Jordan for</i>
Typed Name Jay P. Johnson
Date 3/11/86

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B. PRELIMINARY REMARKS

The AID program in Equatorial Guinea began with the signing of the first bilateral AID Program Grant Agreement on January 13, 1981. It was the first USAID project effort ever in Equatorial Guinea and designed to assist a country struggling to re-establish economic order after a decade of mismanagement under dictatorial rule.

The Agricultural Development Project (653-0001) had an AID funding of one million dollars, all of which was obligated in the original Grant Agreement. The Project Assistance Completion Date (PACD) was established as June 30, 1983. The project contained two components, the first of which was to provide 23 trucks and pickups (including spare parts) to the country's cacao and coffee cooperatives to assist in transporting inputs and delivering products to market. The second component was to provide technical assistance and commodities to put an abandoned commercial poultry and egg production center back into operation and to provide extension training to small farmer poultry producers. Implementation of the latter component was given to International Human Assistance Programs, Inc. (IHAP), a PVO under cooperative Agreement No. 653-0001-A-00-1010-00.

A project evaluation conducted in July, 1982 resulted in a recommendation to amend the project by adding an additional one million dollars and extending the PACD to December 31, 1985. The amendment provided for the extension of the IHAP Cooperative Agreement, including additional commodities for the poultry center, repair work, and short-term training in livestock management for two of the center's employees. Funds for the cooperative component were to provide additional commodities to relieve other identified constraints of the cooperatives. These commodities included fungicides, coffee hullers, hand tools, and additional vehicle spare parts. Funds for short-term technical assistance in vehicle maintenance and financial management also were provided. This additional one million dollars was obligated under Amendment No. 1 to the Project Grant Agreement on September 24, 1982.

A second project evaluation was conducted in August, 1983. This evaluation identified serious problems in the maintenance and control of the cooperative vehicles provided by the project, serious problems with marketing policies being used by the PPC as well as questions about its long term potential for financial viability. The evaluation recommended that: (1) an American Cooperative Development Organization (CDO) be invited to design a project aimed at improving performance of cocoa and coffee cooperatives and improving the utilization of the commodities provided or to be provided by USAID; (2) the IHAP Cooperative Agreement again be extended but that the emphasis of the program be moved from production at the poultry center to small livestock and vegetable extension activities with small farmers; (3) long-term technical assistance in the area of vehicle maintenance and repair be provided; and (4) the project budget be revised to decrease the amount of commodity procurement to be performed.

Concurrent with the design of the Cooperative Development project (653-0002), Project Amendment No. 2 to the Agricultural Development Project was negotiated. This extended the IHAP Cooperative Agreement until April 15, 1986 and phased inputs available from the Agricultural Development project for cooperatives with the program established in the Cooperative Development Project. Amendment No. 2 placed less emphasis on the provision of technical assistance to the PPC by refocusing the project into five broad categories in which the technical advisor was to devote his efforts. These categories and the percentage of time the technical advisor was to devote to each activity are:

Rustic poultry production	40%
Poultry production center	20%
Rabbit production	25%
Vegetable seed sales and extension	5%
Corn trials	10%

PROAG Amendment No. 2 extended the life of project until August 27, 1987.

C. RECOMMENDATIONS

1. USAID should have only one project in Equatorial Guinea implemented by one PVO. The PVO should have good home office backstopping capability to reduce the level of administrative support needed from USAID/Cameroon.
2. As the Agricultural Development project will essentially be finished upon completion of the IHAP Cooperative Agreement in April, 1986, CLUSA should give careful consideration to expanding their involvement in agricultural extension activities under the of the Cooperative Development project (653-0002).
5. Although rustic poultry production faces severe constraints on Bioko Island, the Ministry of Agriculture should be encouraged to carry on with the parasite control program at least until the effectiveness of the program can be determined..
6. Rabbits need continued testing in order to determine their adaptability to the village environment.
7. The production of corn for poultry feed does not appear promising in Bioko and corn trials should be discontinued.
9. An effort should be made to more involve the extension staff of the Ministry of Agriculture in agricultural development activities.
10. There is a continuing need for trained agriculturists within the E.G. Ministry of Agriculture. USAID should continue to encourage enrollment of Ministry personnel in long-term academic training programs through the AMPD and AFGRAD programs.

11. The project has not yet begun formal farmer training and extension programs. This activity needs to be emphasized through the remaining life of the project. The German Technical Cooperation will be providing material support to the agricultural extension effort but cannot provide field training for extension agents.
12. This project was the first development project undertaken by USAID in Equatorial Guinea and USAID was under considerable pressure to design and implement almost immediately a project which would show U.S. support to the country. USAID should have, however, gathered baseline data on agricultural production and cultural practices prior to implementing the project.
13. The technical advisor should act as liaison between the Ministry of Agriculture and the International Potato Institute during upcoming trials in the highland Moka area to test potato clones resistant to bacterial wilt.
14. The E.G. Ministry of Agriculture needs to create linkages with regional and international agriculture research centers.
15. A formal letter should be submitted to the Minister of Agriculture effecting the transfer of certain commodities currently under the control of IHAP to CLUSA upon termination of the IHAP Cooperative Agreement on April 15, 1986, as agreed to verbally by the Minister, the USAID Director and the U.S. Ambassador on November 22, 1985. Specifically, recommended items for transfer are:

<u>Quantity</u>	<u>Description</u>
1	Set of furniture for the house at Basile
1	Lister TS-2 generator
1	Honda 3.5 kw generator
1	Cannon PC-25 copier
1	Kay Pro 2 computer
1	Epson printer
1	1985 Land Rover 4-wheel drive vehicle
3	Office desks
6	Office chairs
1	File cabinet
1	Book case
1	Computer stand
2	Typewriters

15. As per Article IX "Special Provisions" in the IHAP Cooperative Agreement, IHAP is required to perform the following close out procedures upon completion of the Cooperative Agreement on April 15, 1986:

A. Immediately refund any balance of unobligated (unencumbered) funds in accordance with Standard Provision 8.

B. Submit, within 90 calendar days after the completion of the Period of Agreement, all financial performance, and other reports required as a condition of the Agreement (an extension to the 90-day limit may be authorized by the Director of USAID/Cameroon).

C. Account for any property supplied by AID or acquired with Federal funds in accordance with Standard Provision 23.

D. EVALUATION METHODOLOGY

The final project evaluation was conducted from November 7-22, 1985. The evaluation team consisted of Mr. Larry Dominessy, USAID/Cameroon Program Coordinator for Equatorial Guinea, Mr. William Schillinger, USAID/Cameroon Agricultural Project Officer, Mr. Don Kennedy, USAID/Cameroon Project Development and Evaluation Officer, Dr. John Conje, IHAP/New York Consultant and Agricultural Specialist, and Mr. Joe Enos, IHAP/Equatorial Guinea Country Representative and Technical Advisor.

The team visited project sites at Basile, Cupapa, Baho Grande, Baho Pequino, Bilelipo, Mcka, Fuiche, and Belebu. Additionally, the team met with the E.G. Minister of Agriculture and other E.G. Ministry of Agriculture officials, participant small farmers, the U.S. Ambassador to E.G. and Embassy Staff, and IHAP/E.G. Staff. Project reports, memoranda, AID/IHAP Project Cooperative Agreement, the Cooperative Agreement Amendment I, the Project Proposal, the Extension Proposal covering phase II, and the mid-term evaluation report were reviewed.

E. PRINCIPLE ISSUES

1-A. Is a rustic poultry production system being established capable of increasing the island's population of rustic birds?

Yes. It is estimated that 50% of the island's rustic bird population are dying each year due to parasite infestation. Selected villages have been receiving regular visits by the technical advisor who administers anti-parasite medication to the poultry. As the poultry anti-parasite control program was launched in September, 1985, there has not been adequate time to determine if the program will

substantially reduce the mortality rate for rustic poultry. It costs the project approximately CFA 150 annually per bird for parasite treatment. It is yet undetermined whether villagers will carry on such a treatment program on their own when the project ends.

B. Is the Poultry Production Center (PPC) functioning as a commercial producer of poultry and eggs?

Not any longer. The PPC ceased all poultry operations soon after the evaluation team left the country (December, 1985). As the GREG lacked the funds to procure feed, the PPC was forced to adapt the policy of selling layers in Malabo in order to purchase feed for the remaining layers. This practice soon led to the gradual but complete decimation of the layer stock. Although the PPC had functioned as a commercial producer of poultry and eggs since the inception of the project, the operation of the PPC was never financially viable and has been a source of political as well as economic problems throughout the life of the project. It should be noted that the technical advisor's role in the operation of the PPC as defined by PROAG Amendment No.2 is to devote 20% of his time to advising the PPC Board of Directors in such matters as feed projections, egg production projections, vaccination and mortality control, and other technical questions. No additional resources beyond the provision of technical assistance was to be provided.

C. Is the PPC providing an extension service for rustic poultry production?

Yes. The technical advisor and his Equatoguinean assistants are actively involved in rustic poultry extension work. Although PROAG Amendment No. 2 calls for distribution of chicks to the villages, this proved to be impractical due to high chick mortality rates. Poultry extension work, therefore, has concentrated almost entirely on anti-parasite control.

D. Is the PPC initiating a program of hatching and distributing rustic chicks through the use of kerosene incubators?

No. The concept of rearing chicks in kerosene incubators was not properly researched by the project designers. Older chicks are available at the Ministry of Agriculture hatchery at a lower price than what it would cost to raise chicks in kerosene incubators.

2. Are all funds generated by the sale of items for the PPC maintained in a PPC account and used to finance recurrent cost of the PPC.

Yes. All funds are accounted for in the PPC's books, but chronic leakage of eggs and birds has been a problem.

3. Is a small farmer rabbit production system being established consisting of breeding stock maintained at the PPC, training courses for interested farmers and a scheduled distribution for rabbits?

The rabbit component of the project, to date, has received the least attention of any project component by the technical advisor. Rabbit breeding stock was not purchased in Cameroon and transported to Basile until May, 1985. Although suffering from an initial high mortality rate, the project's breeder rabbit population has increased significantly during recent months. Training courses for interested farmers have not yet been initiated nor has distribution of the rabbits. Distribution of rabbits to the village environment is to receive priority consideration during the remainder of the project.

4. Is a service being established to provide vegetable seeds and advice on planting for small farmers interested in vegetable production?

Yes. The technical advisor has promoted vegetable gardening in conjunction with extension training for corn trials and rustic poultry production. A base stock of vegetable seeds was purchased by the project and is being sold, at cost, to farmers. The evaluation team determined that the vegetable seed distribution has been a very popular and successful component of the project.

5. Is locally produced poultry feed available? Are trials being conducted on different corn varieties leading to a recommendation as to the feasibility of producing indigenous poultry feed?

It was initially envisioned that there were many locally available materials which could be used for the fabrication of feed, including animal bones, palm cake, egg shells, corn, cassava and fish meal. In reality, only cassava could be said to be available in sufficient quantity to be considered a consistently available feed, and cassava could be used for only a maximum of 20% of the feed mixture.

The growing conditions on Bioko are not well suited for maize production. The evaluation team inspected several trial plots established by the technical advisor, most of which were stunted, chlorotic, diseased or insect infested. The team did observe one corn trial in the tasseling stage that was performing well, probably because it was newly cleared land still possessing high native fertility. Although environmental factors can be overcome to a certain extent by the plasticity within the maize species and by agronomic practices, the evaluation team recommends that corn trials on Bioko be discontinued. Mainland Rio Muni, with lower temperature and humidity, would appear to offer a better climatic environment for corn production than Bioko Island.

6. Has the project cooperated with Ministry of Agriculture extension personnel in carrying out village extension efforts?

No. The Ministry of Agriculture Extension Service has neither vehicles nor funds for this purpose. Extension agents have not received their salaries for several months, resulting in a lack of motivation to perform substantial work. It should be emphasized, however, that many extension agents have received six months of specialized agricultural training in Spain, thus making them comparatively better qualified than many of their counterparts in other developing countries and a potential valuable resource for the country.

7. What project activities show the best promise for increased emphasis?

Vegetable seed distribution and extension shows the greatest potential. Several communities have expressed a high degree of interest in vegetable production both for their own consumption and for sale in the market. Mineral deficiencies in the local diet indicate that increased vegetable consumption would have an important impact on the health of the population. The parasite control program, although still in its initial stages, may play an important role in stabilizing the rustic poultry population.

8. Has the technical advisor been able to adequately address all five components of the project?

No. It was unrealistic to expect one advisor to have enough time or possess the varied technical skills needed to successfully address all five project components.

F. LOGFRAME ANALYSIS

Goal

The project goal is to increase the income of small farmers. To date, the evaluation team could find no evidence that this has actually occurred, but the process of attaining this goal has begun.

Purpose

The purpose of the Project, as amended, is to improve the productivity of small farmers by increasing on-farm production of rustic poultry, eggs, rabbit meat and vegetables through effective extension which will provide small farmers with needed training and services and explore the possibility of indigenous poultry feed production.

The EOPS condition requires that by the end of 1985 approximately 150 small farmers will be making a net profit of 15% on their investment in poultry production. As discussed in the 1983 mid-term evaluation report, it is not feasible to pursue this objective due to the likelihood that feed will not be forthcoming. It was recommended that the current program of increasing the number of rustic birds through parasite control on the Island be continued. The 1983 evaluation report further recommended that the EOPS should be changed to reflect this new emphasis. Although Project Amendment No. 2 failed to revise the EOPS, it did revise project outputs which reflected the five components of the amended project, namely: Poultry Production; Rustic Bird Production; Rabbit Production; Poultry Feed Production, and Vegetable Production.

Except for vegetable seed distribution, which has been the most successful component, the project purpose has not been fully achieved. The causes of these shortfalls have been: (a) insufficient level of technical assistance; (b) the high death rate of birds due to intestinal parasites which shifted the immediate focus from increasing bird population to stabilizing bird population through parasite control; and (c) the one year delay in the implementation of the rabbit component. Although the project was not able to fully achieve the purpose, it started the process and established the necessary infrastructure that could lead to it's eventual attainment

Outputs

The revised project outputs as stated in the amended Project Paper were stated as follows:

- (1) Functioning Poultry Production Center at Basile producing eggs and poultry meat in accordance with the availability of poultry feed..
- (2) A rustic poultry production system established, consisting of two electrically operated commercial incubators and twenty 360-egg kerosene incubators operated by trained farmers, capable of increasing the island's population of rustic birds by 11,000 per year by August, 1987.
- (3) Several trials of different corn varieties conducted leading to a recommendation as to the feasibility of producing indigenous poultry feed.
- (4) A small farmer rabbit production system established consisting of breeding stock maintained at the PPC, training courses for interested farmers, and distribution of rabbits.
- (5) A service established to provide vegetable seeds and advice on planting for small farmers interested in vegetable production.

PROGRESS-TO-DATE AGAINST PROJECTED OUTPUT TARGETS

Outputs

Progress to date

- | | |
|--|---|
| <p>1. Functioning Basile Poultry Center producing eggs and poultry meat in accordance with availability of feed.</p> <p>2. Rustic Poultry Production system established capable of increasing bird population by 11,000 per year by August, 1987.</p> <p>3. Corn variety trials conducted leading to a recommendation as to the feasibility of producing corn feed in Bioko.</p> <p>4. Small farmer rabbit production system established; breed stock maintained at PPC; farmers trained; rabbits distributed.</p> <p>5. A service established to provide vegetable seeds and advice on planting for small farmers interested in vegetable production.</p> | <p>1. Poultry Center at Basile with trained staff established, producing up to 600 eggs/day. Operation now closed due to exhaustion of feed supply.</p> <p>2. Not feasible due to high death loss of rustic birds from intestinal parasite. A parasite control program is being implemented.</p> <p>3. 24 on-farm trials of 14 corn varieties conducted led to a recommendation that corn feed production is not feasible in Bioko.</p> <p>4. A breeding stock of 20 does, 10 bucks, and 140 bunnies maintained at PPC, 3 Equatoguineans trained at PPC; rabbit distribution will be made in December, 1985.</p> <p>5. \$1500 of vegetable seeds, hand tools and extension services provided to 400 farmers in 10 villages.</p> |
|--|---|

Poultry Production Center. - The PPC commercial poultry operation was envisioned as a self-functioning institution which would only require the part-time advice of a technical expert in such matters as feed projections, egg production projections, vaccination for mortality control and other technical questions. The technical advisor has continued to advise the Board of Directors and provided advise on the care and maintenance of equipment provided with USAID funds. In addition, various technical and pricing studies were made with the intention of teaching the PPC staff to conduct similar studies in the future. The major constraint at the PPC has been the inability of GREG to purchase poultry feed. Commercial meat and egg production at the PPC has now been terminated as the PPC Board of Directors was forced to sell all birds because of lack of feed.

Rustic Poultry Production. - Birds are called rustic when they have the ability to survive as scavengers while at the same time making modest gains in weight and providing some egg production. The amended project design called for supplying kerosene incubators to be used in the production and distribution of rustic chicks. High death rates (about 50%) of existing birds from intestinal parasites shifted the focus from production and distribution to stabilizing village bird population through a parasite control program. It is estimated that the treatment will reduce death loss to about 20%. To date, about 1800 birds have been treated in 13 villages.

Corn trials. - Corn varietal trials have been conducted at times of the year considered most likely for corn production, particularly the beginning and end of the rainy season. Generally, the corn trials have not been successful due to high temperature, high humidity, pests and the high nitrogen demand of corn. It was determined that the corn trials should be discontinued..

Rabbit production. - The amended project design called for the establishment of a small farmer rabbit production system consisting of breeding stock maintained at the PPC, training courses for interested farmers, and a scheduled distribution of rabbits. Currently, only the breeding stock has been maintained at the PPC. Three Equatoguineans have been trained at the PPC. Training of interested farmers and a scheduled distribution of rabbits have not yet been implemented.

Vegetable seed sales and extension. - A service has been established by PPC extension personnel which provides vegetable seeds, hand-tools and advice on planting to small farmers interested in vegetable production. Initial studies indicate that vegetable production has a good likelihood to be a commercial success as there is a ready market in Malabo.

The amended project design also called for the collaboration of the Ministry of Agriculture Extension Service in the execution of the project. The project design contemplated that PPC extension personnel would have daily responsibility in the implementation of the project while the Ministry of Agriculture village extension agents and community development workers would have the responsibility of cooperating and coordinating when project activities extend to their area of responsibility. This type of coordination has not yet developed. 95% of the extension agents on Bioko Island are located in Malabo.

Inputs

The project was staffed by a technical advisor from 1982 until the conclusion of his contract in June, 1984. In August, 1984, another technical advisor began work and will remain until the conclusion of the IHAP Cooperative Agreement in April, 1986. Commodity inputs include a grain mill and mixer, vegetable seeds, hand tools, rabbit breeding stock, and various items needed for the operation of the PPC. Three Equatoguinean have been trained in poultry and rabbit rearing operations and procedures .

The major problem with inputs has been the lack of essential services which must accompany these inputs to make them effective. For example, a major input is a grain mill and mixer. This equipment had not yet been installed due to the lack of a large generator to power them. Moreover, it is pointless to have the grain mill and mixer when there is not an adequate supply of locally available ingredients to produce poultry feed. Another example is the kerosene type incubators. These are no longer manufactured in either Spain or the United States. The project purchased the last four produced in the U.S. of which three were fuel oil driven and one a kerosene unit. There is no fuel oil in E.G. and the unit cannot be adapted over to kerosene. Moreover, these were not used because the Ministry hatchery, which is the only source of fertilized eggs on the island, will not sell fertilized eggs.

The GREG has had great difficulty providing one of their major inputs, namely a constant supply of imported poultry feed, due to their dire economic condition.

G. EXTERNAL FACTORS

There have been no major changes in the project setting or in host government priorities which have had an impact on the project. Although the acceptance of Equatorial Guinea into the Union of Central African States in August, 1984

and the conversion of the Equatorial Guinea Bikwele into Central African Francs (CFA) in January 1985, removed the serious foreign exchange reserve problem and currency convertibility problem it had at the time of the mid-term evaluation, this did not solved GREG problem of low reserve of funds to purchase imported poultry feed. The assumption that the GREG would provide a continuous and adequate supply of high quality poultry feed to meet the requirements of the PPC was invalid.

H. BENEFICIARIES

The direct beneficiaries of this project are the 400 small farm families who received visits from the Poultry Production Center extension agents. This includes: (1) 60 farm families who have learned from the project corn trials; (2) 250 farm families have increased agricultural productivity and improved nutrition by benefitting from the vegetable component of the project; (3) 150 families have had their poultry treated for parasites; and (4) the 3 Equatoguineans trained in poultry production at the PPC.

Indirect beneficiaries of this project are (1) the consumers of the of PPC eggs and chickens; and (2) the GREG, USAID and other donor organizations, whom, we hope, have learned from this project and will use the data made available by this project in planning future agricultural extension programs in Equatorial Guinea.

I. UNPLANNED EFFECTS

A very important unplanned effect resulted from the high death rate of island's rustic birds from intestinal parasites which required changes in the execution of the rustic production component. The immediate focus has shifted from production and distribution of rustic chicks to stabilizing the island's rustic bird population through a parasite control program.

Another unplanned effect is a program being organized to increase potato yields by reducing losses due to potato bacterial wilt. The International Potato Institute, the E.G. Ministry of Agriculture, USAID/Cameroon and the IHAP technical advisor are collaborating to test and subsequently release potato cultivars resistant to bacterial wilt.

J. LESSONS LEARNED

The evaluation team concluded that the following are lessons learned from the project experience:

1. The project has too many varied components making it difficult for the technical advisor to perform each task in any depth. It is unrealistic to expect one technical advisor to have the necessary breadth of technical skills to completely implement all the activities in the project.
2. Frequent communication among USAID, GREG and the technical advisor are necessary to avoid misunderstandings. For example, relations between the IHAP technical advisor and the Ministry of Agriculture were adversely affected by a misinterpretation of PROAG Amendment No. 2 which necessitated the intervention of USAID project staff to settle an awkward situation.
3. Appropriateness and availability of commodities critical to project success must be checked prior to project implementation. For example, the kerosene incubators proposed in this project were no longer available. The grain mill and mixer have much larger capacities than could possibly be utilized and a motor too large to be powered with available electricity. The grain mill and mixer should not have been purchased as there are no available feed ingredients.
4. A careful study of constraints to production should be completed prior to the selection of what constraints the project will address.

5. When operating in a country facing serious economic problems and with a very weak administrative infrastructure, the project should attempt to address a well defined problem and propose relatively simple and attainable solutions.
6. Technical advisors should be aware, or made aware, of existing regional and International Research Centers and what these centers can do to assist them in the implementation of project activities. Linkages between country programs and regional and international research centers should be encouraged.
7. Due to dire economic conditions in Equatorial Guinea, the GPFC should not have been expected to make a substantial contribution of inputs to the project. Although the GREG did purchase imported poultry feed during the first year of the project, the lack of capital to purchase feed closed PPC operations in December, 1985.

K. PERSONS INTERVIEWED

1. Mr. Miguel Oyono Ndong Mifumu, Minister, Ministry of Agriculture, Livestock and Rural Development.
2. Ambassador Frank Ruddy, U.S. Ambassador to Equatorial Guinea.
3. Mr. Jay Johnson, USAID Mission Director, Yaounde/Cameroon.
4. Mr. Pablo Mba, Board of Director, Basile Poultry Production Center.
5. Mr. Anatolio Mhong Mba, Director of Agriculture, Ministry of Agriculture, Livestock and Rural Development.
6. Dr. Eizamana Adidada, Veterinarian, Coordinator of IHAP Parasite Control Program.
7. Mr. Rafaël Baca, Director, Basile Poultry Production Center.
8. Mr. Carlos Beeho, IHAP Extension Agent.
9. Mr. Victor Besopo, IHAP Extension Agent.
10. Ms. Margarita Costa Bioko, IHAP Extension Agent
11. Mr. Rudiger AltPeter, Chief of Party and Executive Planner for the Ministry of Agriculture, West German Technical Cooperation.
12. Mr. David Bick, Chief of Party, World Bank, Cacao Rehabilitation Project for Equatorial Guinea.
13. Mr. L. James Alrutz, Regional Director for AFPICA, National Cooperative Business Association, Washington, D.C.
14. Mr. Javier Rubiera, Spanish Technical Advisor to the Ministry of Agriculture.
15. Mr. Rafaël Marcos, Instructor, Spanish Agricultural School.
16. South African Livestock Team in Moka.
17. North Korean Vegetable Production Team in Moka.

L. ANNEXES (Attached)

IHAP Technical advisor Joe Enos's Quarterly Reports submitted through December, 1985.

MISSION CLEARANCE

ARD:WFSchillinger (draft)

ARD:LJDominessy (draft)

PDE:DKennedy (draft)

PRM:NOISEN (draft)

D/DIR:MJordan [Signature]

DIR:JPJohnson [Signature]