

PDBAH064

PROJECT PAPER

GUINEA-BISSAU

AGRICULTURAL DEVELOPMENT

657-0002

Approved September 1, 1977

AGENCY FOR INTERNATIONAL DEVELOPMENT PROJECT PAPER FACESHEET	1. TRANSACTION CODE <input type="checkbox"/> A ADD <input checked="" type="checkbox"/> C CHANGE <input type="checkbox"/> D DELETE	PP 2. DOCUMENT CODE 3

3. COUNTRY/ENTITY Guinea-Bissau	4. DOCUMENT REVISION NUMBER 1
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5. PROJECT NUMBER (7 digits) 657-0002	6. BUREAU/OFFICE A. SYMBOL AFR B. CODE 1	7. PROJECT TITLE (Maximum 40 characters) Agricultural Development
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8. ESTIMATED FY OF PROJECT COMPLETION FY 80	9. ESTIMATED DATE OF OBLIGATION A. INITIAL FY 77 B. QUARTER 4 C. FINAL FY 79 (Enter 1, 2, 3, or 4)
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A. FUNDING SOURCE	FIRST FY			LIFE OF PROJECT		
	B. FX	C. L/C	D. TOTAL	E. FX	F. L/C	G. TOTAL
AID APPROPRIATED TOTAL	848	152	1,000	1,198	352	2,350
(GRANT)	848	152	1,000	1,198	352	2,350
(LOAN)						
OTHER U.S. 1.						
OTHER U.S. 2.						
HOST COUNTRY		493	493		1,251	1,251
OTHER DONOR(S)						
TOTALS	848	645	1,493	1,198	1,603	3,001

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	PRIMARY TECH. CODE		E. 1ST FY 77		H. 2ND FY 78		K. 3RD FY 79	
		C. GRANT	D. LOAN	F. GRANT	G. LOAN	I. GRANT	J. LOAN	L. GRANT	M. LOAN
(1) FN*	120	070		1,000		850.		500.	
(2)									
(3)									
(4)									
TOTALS				1,000		850.		500.	

A. APPROPRIATION	N. 4TH FY		O. 5TH FY		LIFE OF PROJECT		12. IN-DEPTH EVALUATION SCHEDULE
	Q. GRANT	P. LOAN	R. GRANT	S. LOAN	T. GRANT	U. LOAN	
(1) FN					2,350.		MM YY 01 79
(2)							
(3)							
(4)							
TOTALS						2,350.	

13. DATA CHANGE INDICATOR. WERE CHANGES MADE IN THE PID FACESHEET DATA, BLOCKS 12, 13, 14, OR 15 OR IN PRP FACESHEET DATA, BLOCK 12? IF YES, ATTACH CHANGED PID FACESHEET.

*\$500 obligated in FY 1977 from 496(a) funds.

1 = NO
 2 = YES

14. ORIGINATING OFFICE CLEARANCE			15. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION		
SIGNATURE <i>S. Thomas...</i>		DATE SIGNED MM DD YY 09 01 77	MM DD YY		
TITLE Director, AFR/RA					

REVISION 6

AGENCY FOR INTERNATIONAL DEVELOPMENT
PROJECT PAPER FACESHEET
TO BE COMPLETED BY ORIGINATING OFFICE

1. TRANSACTION CODE ("X" appropriate box)
 Original Change
 Add Delete

PP
DOCUMENT CODE 3

2. COUNTRY/ENTITY
Guinea-Bissau

3. DOCUMENT REVISION NUMBER

4. PROJECT NUMBER
657-0002

5. BUREAU
a. Symbol AFR b. Code 1

6. ESTIMATED FY OF PROJECT COMPLETION
FY 7 | 9 |

7. PROJECT TITLE - SHORT (stay within brackets)
 Agricultural Development

8. ESTIMATED FY OF AUTHORIZATION/OBLIGATION
 a. INITIAL ^{mo. yr} 7 | 76 b. FINAL FY 7 | 9 |

9. ESTIMATED TOTAL COST (\$000 or equivalent, \$1 =)

a. FUNDING SOURCE	FIRST YEAR FY 77			ALL YEARS		
	b. FX	c. L/C	d. Total	e. FX	f. L/C	g. Total
AID APPROPRIATED TOTAL	500		500	500		500
(Grant)	(500)	()	(500)	(500)	()	(500)
(Loan)	()	()	()	()	()	()
Other 1.						
U.S. 2.						
HOST GOVERNMENT		In kind			In kind	
OTHER DONOR(S)						
TOTALS	500		500	500		500

10. ESTIMATED COSTS/AID APPROPRIATED FUNDS (\$000)

a. Approp-riation (Alpha Code)	b. Primary Purpose Code	c. Primary Tech. Code	FY 77		FY 78		FY 79		ALL YEARS	
			d. Grant	e. Loan	f. Grant	g. Loan	h. Grant	i. Loan	j. Grant	k. Loan
PC	120	070	500							
TOTALS			500							

11. ESTIMATED EXPENDITURES -0- 370 130

12. PROJECT PURPOSE(S) (stay within brackets) Check if different from PID/PRP

To provide the GOGB with supplemental assistance to increase agricultural production including seed improvement, identification and control of plant diseases and land reclamation.

13. WERE CHANGES MADE IN BLOCKS 12, 13, 14, or 15 OF THE PID FACESHEET? IF YES, ATTACH CHANGED PID FACESHEET.
 Yes No

14. ORIGINATING OFFICE CLEARANCE

Signature: *E. Dennis Conroy* 6/2/76

Title: E. Dennis Conroy, Director, Office of Regional Affairs

Date Signed: mo. 6 | day 18 | yr. 76

15. Date Received in AID/W, or For AID/W Documents, Date of Distribution

mo. | day | yr.

Participants in Project Paper Revision Process

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2. Inacio Semedo, General Director of International Cooperation
3. American Embassy/Bissau
4. Dean Curran, Chargé d'Affaires

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Consultant:

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Project Review Committee

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SEP 1 1977

ACTION MEMORANDUM FOR THE ASSISTANT ADMINISTRATOR FOR AFRICA

FROM: AFR/RA, E. Dennis Conroy *E. Dennis Conroy*

SUBJECT: Project Paper Revision - Agricultural Development Project
(657-0002) - Guinea-Bissau

Problem: Subject project has been revised substantially to reflect new funding requirements and incorporate up to date information on the project's implementation, technical assistance, commodity and training aspects. Your approval of this revision is required.

Discussion:

The revised Agricultural Development Project incorporates a number of changes that have evolved since the project's original approval in June 1976. Most of these will affect the implementation schedule and the overall life of the project. Projected outputs will also be influenced under the revision. However, the goal and the purpose remain as stated in the original project paper. The project's areas of emphasis continue to be (1) seed improvement and production, (2) identification and control of plant diseases, and (3) land reclamation.

According to the original project paper, the project was to begin implementation immediately after the signing of the Grant Agreement which was scheduled for July 1976. The Government of Guinea-Bissau (GOGB) did not, however, sign the Project Agreement until December 1976. The lack of qualified Portuguese-speaking technicians to work with the Government of Guinea-Bissau (GOGB) also contributed to delayed scheduling of the project. In addition, assignment of the first A.I.D. Country Development Officer, who was to arrive in July 1976, was cancelled and the position was not filled in Guinea-Bissau until June 1977.

The life of project funding under the original project paper totaled \$500,000 from Section 496(a) funds for Portuguese-speaking Africa. This amount covered only the initial project requirements. Additional requirements, justified by this revision, will be met by regular development grant funds as follows:

- a. an additional \$500,000 during the fourth quarter FY 77;
- b. \$850,000 in FY 78; and
- c. \$500,000 in FY 79.

These amounts have been anticipated in the Congressional Presentation FY 78 (page 152 of FY 78 CP) which shows an estimated project cost of \$1,850,000 not including 496(a) funds. However, these amounts were not included in the FY 1977-Congressional

Presentation and the appropriate Congressional Notification has been submitted. The GOGB contribution is estimated at \$1.25 million (35% of project cost) for counterpart personnel, staff salaries, existing seed storage facilities, and laboratory space.

The components of the project have been revised as follows:

A. Seed Improvement

Short term technical service has been extended from 10 months to 12 months, and short term training abroad has been reduced slightly. Long term training has been expanded, with 54 months of participant training to achieve a BS level for 2 participants in agronomy (seed improvement and testing) at a U.S. institution. Upon request by the GOGB, A.I.D. will also make available up to \$59,000 for equipment and in-country and third country training or U.S. training for the soils laboratory. A conditioned storage room that will allow effective control of the temperature and humidity is to be constructed.

B. Plant Pathology

Scheduling changes only are involved.

C. Land Reclamation

This section of the original project paper was revised by a three-person team which visited Bissau in mid-July 1977. Revisions and supplements cover technical assistance requirements and qualifications and provide a better defined scope of work for the construction of earthen dams and dikes. Furthermore, the revised project includes a section on survey and design methodology as well as criteria for the proper selection of sites. In order to begin work at an early date the equipment will be ordered by September 1977 and delivered no more than 15 months later. To facilitate adequate training, travel allowances for the agricultural institutional development component have been increased from \$8,000 to \$20,000.

Among others, the key issues discussed and resolved during the revision process and committee meetings were as follows:

1. Seed Improvement:

A.I.D.'s experience with other projects having a seed improvement component was examined. It was noted that some countries have passed legislation to control seed production,

storage, seed purity, etc. as part of their seed development programs. Although such legislation may be desirable, it was decided that the: (a) the seed component of subject project is very small and does not warrant the effort to bring about such legal framework; and (b) Guinea-Bissau does not have the technical capability to pass such legislation.

2. Environmental aspects:

Discussions on the environmental aspects of the project revolved around the seed improvement and land reclamation project components:

(a) Seed improvement

The committee expressed concern about the possibility of human consumption of seeds treated for prevention of disease and insect damage. This is a universal problem and it was decided that the best way to prevent human consumption of such treated seed is to increase the awareness of those who will be in charge of the project. The U.S. technicians who will be working with GOGB counterparts will play an important role in this respect. Also, a special covenant will be included in the Project Agreement requiring the GOGB to undertake appropriate steps to prevent such occurrences.

(b) Land reclamation

The committee expressed concern about the possibility of adverse effects to the marine life since the project involves "wetland reclamation". However, the project would involve only a small percent of such land and land which is up to 50 miles from the coast. Given this situation, the impact on the marine life would be negligible, if any. The committee concurred with the PP Revision recommendation for a Negative Determination based on the understanding that: (1) appropriate environmental criteria will be developed for the final site selection; (2) the dams and dikes will be small earthen structures that can be easily removed if subsequent project evaluation shows adverse effects to the environment, and (3) an engineer (included in the project) will examine and approve each dam site.

Recommendation:

1. That you approve the PP Revision and a source and origin

waiver for the procurement of commodities and training services by signing the attached Project Authorization and Request for Allotment of Funds, PAF, Part II (Tab A).

2. That you approve a Negative Determination on the project's Environmental Impact by signing the Face Sheet of the Initial Environmental Examination Statement (Tab B).

Attachments:

Tab A - Project Authorization and Request for Allotments of Funds, Part II.

Tab B - Initial Environmental Examination Statement

Clearances:

AFR/DR:GThompson	<u>MT</u>	date	<u>8/31/77</u>
AFR/DP:CWard	<u>SAK</u>	date	<u>8/31/77</u>
GC/AFR:EADragon	<u>SAK</u>	date	<u>8/31/77</u>
SER/ENG:PStearns	<u>MS</u>	date	<u>8/31/77</u>
AFR/DR/SDP:DDibble		date	
SER/ENGR:CPalesh (draft)		date	<u>8/26/77</u>

AMDiaz

AFR/RA/PSA:AMDiaz:file:8/26/77

DEPARTMENT OF STATE
AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D.C. 20523

PROJECT AUTHORIZATION AND REQUEST FOR ALLOTMENT OF FUNDS

PART II

COUNTRY: Guinea-Bissau
PROJECT: Agricultural Development
PROJECT NUMBER: 657-0002

Pursuant to Part I, Chapter 1, Section 103 of the Foreign Assistance Act of 1961, as amended, I hereby authorize a Grant to the Republic of Guinea-Bissau the "Cooperating Country" of not to exceed five hundred thousand United States Dollars (\$500,000) the "Authorized Amount", to help in financing certain foreign exchange and local currency costs of goods and services required for the project as described below. This funding increase will be used to finance the purchase of additional equipment and services to help construct the seed storage units, the seed and plant pathology laboratories, and to begin the training phase in seed analysis, plant pathology and land reclamation activities, i.e. mechanics and agricultural planning.

I approve the total level of A.I.D. appropriated funding planned for the Project of not to exceed \$2,350,000 (grant) during the period FY 1977 through FY 1979.

I hereby authorize the initiation of negotiation and execution of the Project Agreement by the officer to whom such authority has been delegated in accordance with A.I.D. regulations and Delegations of Authority subject to the following essential terms and covenants and major conditions, together with such other terms and conditions as A.I.D. may deem appropriate.

A. Source and Origin of Goods and Services

Except as authorized in paragraph B. below, and except as A.I.D. may otherwise agree in writing, goods and services financed by A.I.D. under the project shall have their source and origin in countries included in A.I.D. Geographic Code 941. Ocean shipping financed under the Grant shall be procured in any eligible source country except the Cooperating Country.

B. Statement of Revision

The original project paper for the Agricultural Development Project in Guinea-Bissau has been revised to incorporate a number of changes and in-house assessments that have been made since its approval in June 1976. Most of these changes and assessments will affect the implementation schedule and the overall life of the project. Projected outputs will also be influenced under the revision. However, the goal and the purpose remain as stated in the original project paper. The project's areas of emphasis continue to be 1) seed improvement and production, 2) identification and control of plant diseases, and 3) land reclamation.

According to the original project paper, the project was to begin implementation immediately after the signing of the Grant Agreement which was scheduled for July 1976. The Government of Guinea-Bissau (GOGB) did not, however, sign the project agreement until December 1976. The lack of qualified Portuguese-speaking technicians to work with GOGB also contributed to delayed scheduling of the project. In addition, the A.I.D. Country Development Officer who was to arrive in July 1976 in Guinea-Bissau did not begin at post until June 1977.

The life of project funding under the original project paper totaled \$500,000 from Section 496(a) funds for Lusophone Africa. This amount covered only the initial portion of requirements for project funding. Additional requirements, justified by this revision, will be met by regular development grant funds as follows:

- (a) an additional \$500,000 during the fourth quarter FY 77;
- (b) \$850,000 in FY 78; and
- (c) \$500,000 in FY 79.

These amounts have been anticipated in the Congressional Presentation FY 78 (see page 152 of FY 78 CP) which shows an estimated project cost of \$1,850,000 not including 496(a) funds. The components of the project have been revised as follows:

A. Seed Improvement

The technical assistance will arrive in the fall of 1977 instead of 1976, and short term technical service has been extended from 10 months to 12 months, whereas short term training abroad has been reduced from 15 months to 12 months. Long term training to the

contrary is added, with 54 months of participant training to achieve a BS level for 2 participants in agronomy at a U.S. institution (emphasis will be placed on specialization in courses that will enhance the participants background in seed improvement and testing). Upon request by the GOGB, A.I.D. will also make available up to \$59,000 for equipment and in-country and third country training or U.S. training to supplement the work in the soils laboratory. Furthermore, to protect the seed in the germination cycle a conditioned storage room that will allow effective control of the temperature and humidity is to be constructed in one of the two new storage buildings provided under the project. Costs for the conditioned storage is estimated at \$5,000.

B. Plant Pathology

Training for this component will commence in October 1977 instead of in August 1976. The first technical assistance is scheduled to arrive April 1978 and the program is anticipated to be completed by July 1979.

C. Land Reclamation

This section of the original project paper was completely revised by a three-person team which visited Bissau in mid-July 1977. Revisions and supplements cover technical assistance requirements and qualifications and provide a better defined scope of work for the construction of earthen dams and dikes. Furthermore, the revised project includes a section on survey and design methodology as well as criteria for the proper selection of sites. In order to begin work at an early date the equipment will be ordered by September 1977 and delivered no more than 15 months later. To facilitate adequate training, travel allowances for the agricultural institutional development component have been increased from \$8,000 to \$20,000.

Overall, the revision addresses more precisely questions concerning technical and financial feasibility. Examples are drawn from previous relevant experiences and appropriate criteria developed from them to insure the continued success of the project after A.I.D. participation is complete.

D. Financial Plan of Project Inputs

The \$500,000 added during the fourth quarter FY 77 will be distributed in the following way:

<u>Technical Assistance</u>	\$148,000
<u>Direct Training</u>	68,000
<u>Equipment</u>	186,500
Heavy equipment & parts	(120,000)
Laboratory equipment	(60,500)
Building equipment	(6,000)
<u>Local Cost</u>	60,000
Construction	(50,000)
Training	(4,000)
OPR cost	(6,000)
<u>Contingency</u>	<u>37,500</u>
	\$500,000

A.I.D. project participation during FY 78 and FY 79 will be funded as follows:

	<u>FY 78</u>	<u>FY 79</u>
Technical Assistance	\$166,000	\$200,000
Direct Training	108,000	100,000
Equipment	400,000	100,000
Heavy equipment & parts	-	-
Laboratory equipment	-	-
Building equipment	-	-
Local Cost	100,000	-
Construction	-	-
Training	-	-
OPR cost	-	-
Contingency	<u>76,000</u>	<u>100,000</u>
	\$850,000	\$500,000

For a more detailed analysis of line itemization see Annex D,

C. Summary Findings

Intensive review of the conditions in Guinea-Bissau have led the Project Development Team to conclude that the assistance proposed herein is the most appropriate for A.I.D. at this time to develop for the country's agricultural sector. Although time and other constraints have not allowed a sectoral assessment, it is evident that the Guineans must have the basic capacity to identify the specific nature of their agricultural problems and possess the means to identify the required solutions. The proposed project will be an important move in this direction.

The environmental impact of this project will be a positive one. The net result of research activities will be more arable land, greater agricultural production and productivity, and increased agricultural employment.

The beneficiaries of this project can be divided into three categories: (a) the principal benefit will accrue to the Guinean farmer who, through increased and improved production, will expand and improve income and nutrition; (b) the nation as a whole will benefit from a larger domestic food supply, a decrease in food imports, and an increase in foreign exchange earnings from exports; and (c) the many GOGB officials who will be trained under this project.

Total project costs for A.I.D. is \$2.35 million which includes the initial \$500,000 obligated from 496(a) funds. The funds are to be expended over a four-year period and are provided under provisions of Section 496 of the Foreign Assistance Act of 1975 (Assistance to the former Portuguese Africa Colonies) and from regular program grant funds. The GOGB contribution will include counterpart personnel, staff salaries, existing seed storage facilities, and laboratory space. The Project Development Team is confident that the equipment, facilities and personnel will continue appropriately beyond the span of A.I.D. assistance.

D. Project Issues

The primary project issue has been resolved by deleting the artificial insemination portion of the project and, more recently, the revised and expanded portions of the land reclamation component. It is expected that two consultants will, however, go to Guinea-Bissau to develop an appropriate herd improvement program.

II. Project Background and Detailed Description

A. Agricultural Overview

The economy of Guinea-Bissau is based on traditional agriculture. As such, this sector is expected to provide the major source of employment and foreign exchange to the nation's inhabitants. Geographically, Guinea-Bissau is located on the West African coast and is situated between Senegal and Guinea. Much of the country is comprised of a low coastal plain with numerous swamps, especially in the southwest. There are a large number of rivers of which the major ones are the Geba, Cacheu, and the Corubal. The land rises gradually toward a savanna in the east, with the highest elevation of 985 feet being in the southeast corner of the nation.

The soil is largely alluvial and fertile. Palms and mangrove thickets cover most of the lowlands along the coast and the rivers. Further inland is a transitional zone with hardwood forests, and in the interior are tree-dotted grasslands.

The climate is tropical with a mean average temperature of 77°F. There are distinct dry and rainy seasons with the latter being from June to November. Rainfall averages approximately 2,800 mm along the coast and 1,000 mm in the interior.

The principal crops of Guinea-Bissau are rice, peanuts, and palm oil. Rice production at one time was 170,000 tons and was exported; however, as a result of the war for independence, production dropped drastically and the country is now importing this staple commodity. Major production declines principally occurred in the regions occupied by Portugal, while the zones liberated by the PAIGC were self-sufficient. It is the goal of the GOGB to reachieve national self sufficiency in rice production within two years.

The agricultural potential of the country must be rated as excellent. In addition to relatively flat, fertile land, there is an abundant supply of water resources to be drawn upon. Prior to the war, land under cultivation was divided into the following uses: rice 31.7%, peanuts 21.8%, corn/sorghum 32.1% and others 14.4%.

Livestock and poultry are areas which have been marked by the Commissariat of Agriculture (CAL) for future priority. To date, however, little of importance has been achieved. Native cattle are generally mature at about 400 pounds, provide small amounts of meat, and insignificant quantities of milk. Virtually all of Guinea-Bissau's current milk needs are met by imports.

Another of the problems created by the small size of the cattle is that very few of these animals are large enough for working. Thus, most of the farm work is still done by hand. Animal traction is only now coming into the fore, principally due to the influence of the Senegalese neighbors in the Casamance Region. In addition, many refugees have returned from Senegal since independence and have brought with them the knowledge and the know-how for use of animal traction.

B. Historical Overview

From its discovery in 1446 until its independence in September 1974, Guinea-Bissau was under the domination of the Portuguese. As a colony of Portugal, little was invested in the way of social and economic infrastructure, especially in the predominant agriculture sector. Nevertheless, before the war for independence which lasted over 10 years, Guinea-Bissau was able to grow sufficient food for

its domestic needs as well as export rice, peanuts and other commodities. Because of the war, however, rice, milk and other essential foods are presently being imported to meet basic needs.

As the PAIGC liberated areas of the country, beginning in the mid-1960's, it established an effective and elaborate administrative system. Illustrative of the efficiency of the system is the fact that during the war the liberated areas were self-sufficient in food production and operated a program of basic education, whereas the non-liberated areas grew more dependent on food imports.

The principal objective of the present government, which is controlled by the African Party for the Independence of Guinea and Cape Verde (PAIGC), is to bring social order and economic development to the new nation. The PAIGC was founded in 1956 to make demands on the Portuguese authorities to improve the economic, social and political conditions of the colony. Actual hostilities directed at independence began in 1963.

Agriculture is the backbone of the nation's economy and, at present, its sole source of export earnings. It is the policy of the GOGB, to the extent possible, to relate the priorities in education and agriculture by including agriculture as an important element in school curricula. An aspect of this objective is to stop or reverse the increase in migration to Bissau, the nation's capital and its principal urban center. Bissau's pre-war population was about 35,000 but since then has grown to about 75,000. Unemployment in the capital is high, but the government has had difficulty in convincing the unemployed to return to productive work in the fields.

The population, which grows at an estimated annual rate of 2%, is calculated at about 975,000 people. It is estimated that 20% speak Portuguese and 80% an unwritten creole dialect of Portuguese. A number of tribal languages are also spoken. Still the GOGB has decided that Portuguese is and will remain the official language.

Guinea-Bissau covers an area of 36,125 sq. km., comprised of eight administrative regions and 37 districts. The country has many rivers, some of which are navigable as far as 70 miles upstream. Annual rainfall averages about 2,800 mm on the coast and about 1,000 mm in the interior. The majority of the rainfall occurs between the months of May and October.

Illiteracy is estimated at between 85% and 90%. Strong emphasis has been placed on providing everyone with a five year primary education. This policy builds upon the wartime practice of including education programs as an essential part of government.

There are no reliable statistical data on the economy. The information which does exist comes from the colonial period and does not reflect the present situation. The GOGB estimates per capita income to be under U.S. \$120 per year, a figure with which the local UNDP office concurs. The current annual trade deficit is over U.S. \$30 million. A major constraint in the implementation of GOGB programs is the chronic lack of funds. Nevertheless, the principal priorities have been identified as being education and agriculture.

C. Description of the Project

The purpose of this project is to provide Guinea-Bissau with supplemental assistance to increase agricultural production through seed production and storage, plant disease identification, and land reclamation. Once this project has been completed, the following is expected to exist: 1) a reduction in seed imports, 2) an established capacity to process, store, package, and deliver seeds, 3) a capacity to identify and recommend treatment for plant diseases, and 4) more effective and technically sound use of structures for control of tide water as a part of a controlled water and reclamation system. These elements should result in a marked increase in overall agricultural productivity.

The goal to which the proposed project will contribute is to provide a supply of food sufficient to feed the population of Guinea-Bissau and eventually to establish exportable agriculture surpluses to earn needed foreign exchange. It is expected that the project purpose will support the goal by providing the GOGB with a capacity to increase agricultural production, including seed improvement, identification and control of plant disease, and land reclamation. The project will provide needed inputs in these three areas and consultant services for further agricultural planning. It is also expected that once this program is implemented, other complementary assistance projects could be developed (in such areas as entomology, herd improvement, grain storage, etc.)

The present program coordinates with existing activities supported by the United Nations and other international donors. Moreover, the project outputs contribute to the government's overall effort in agriculture which the government has designated as a priority sector for development assistance (see FY 1979 ABS Guinea-Bissau Development Strategy).

Implementation responsibility will be with the Commissariat of Agriculture and Livestock (CAL). It is the CAL's intention to establish a basic agricultural investigatory capability for which the inputs (both material and human) of this project will form the nucleus. General project monitoring responsibility will be taken by

the resident A.I.D. representative who arrived in Bissau in June 1977, and TDY technical personnel from AID/W and RLDSO/WA. The Commissariat of Agriculture has indicated to A.I.D. areas which have priority in its program for increasing the agricultural productivity of the country. The following priorities are to be addressed by the project:

1. Seed Improvement

a) Seed Production

This element of the project will provide the GOGB with a capacity to conduct basic programs in the area of seed production. It is the national agricultural policy to supply directly to the farmer seeds, fertilizer, and other materials necessary for the control of insects and plant diseases. To make the proper selection of the inputs to be distributed, the GOGB must have the technical capability to analyze the inputs themselves as well as the agricultural conditions under which the inputs will be utilized.

As an element of the seed program, a laboratory will be established within the facilities of the CAL. This laboratory will conduct basic investigations into the germinating capacity, varietal differences, grading and storing of the seeds of the various crops grown within the country. Equipment and funds for required remodeling of the facilities will be provided by A.I.D. The laboratory space is a GOGB contribution.

Technicians to operate this laboratory will receive both foreign short term technical assistance and training through the A.I.D. project. Besides the elements of essential technological transfer, assistance will also be offered in planning a seed improvement program. Accordingly, coordination with other donors and research facilities (e.g., WARDA) will be undertaken.

The seed improvement program will also be augmented by a series of agricultural demonstration farms. These farms will demonstrate to the farmers who receive the distributed seed the proper manner of cultivation. It is expected that these demonstrations will greatly motivate the adoption of new technology and increase productivity.

The production of seeds to be used in the national seed distribution program has been identified as one of the important needs at this time. Seeds for the 1976 crop, for example, were imported by the UN and other donors and distributed throughout the country. Under the project, farmers will use the project produced

seeds and will pay the government back with a like amount of seed when their crop is harvested. At the present time, the CAL has no facilities or equipment to receive, sort, test, treat, nor store this seed for the coming year. Substantial losses will occur unless this situation is corrected. On the other hand, the successful implementation of this project element will result in a reduction of seed import requirements and in the establishment of an improved GOGB capacity for testing, storing and controlling the quality of the selected, more productive seeds. In addition, technical assistance should also assist in improving processing, packaging and delivery of seeds.

Implementation of this element began in July 1977 when a Seed Specialist from Mississippi State University surveyed the existing seed production capability and developed an implementation plan with the GOGB. The project includes a total of 12 months of short term technical assistance and 12 months of short term training abroad. Approximately 54 months of training to achieve the BS level will also be offered under the project.

Procurement of laboratory equipment should be initiated in the fall of 1977 as a function of the initial technical assistance. Equipment should arrive in country no later than April 1978 at which time the laboratory will be set up for operation.

b) Seed Storage

An important element of the seed program is storage. The government has assumed a critical role in the distribution of seed throughout the country and, in general, has placed high priority on storage for seeds (when the seed has been collected, selected, and treated, it must be stored until the proper time for distribution).

The central collection point for seed and fertilizer will be in Bissau. The Bissau center will handle both imported and domestic seed. At present, there is no seed storage facility in Bissau. Under the proposed project, two new 300-ton capacity storage warehouses will be constructed on existing CAL facilities in Bissau (the Pessebe Granha and another nearby farm unit). A portion of one warehouse will be prepared for conditioned storage. The cost for this new storage will be approximately \$78,000, i.e., about \$130 per ton, plus an additional \$5,000 for the conditioned storage portion of the warehouse. In addition, the project will provide financing for the remodeling of a GOGB furnished space which also houses a soils laboratory financed by the Brazilian Government and ACORD, a private voluntary organization. The project will assist, however, in

mounting the soils laboratory. A.I.D., at the request of the GOGB, will supply some equipment and in-country as well as third country training at a cost of \$59,000. (Both the Seed Investigation Laboratory and the Soils Laboratory are in the same building.)

In the outlying regions of the country there is an additional 3,300 tons of seed storage capacity in old buildings, many of which were damaged during the war. Before the war these locations for 3,300 tons of storage, scattered throughout the country, were controlled by the colonial government. The structures are made of adobe and mud block and are at present in various stages of disrepair. Some buildings require only a few tiles for the roof and screen for the windows, while others need substantial roof repairs and new doors. The buildings were often used during the war for barracks. They are of various sizes (40, 60, 70, and 100 tons storage capacity). Some of them are poorly located and eventually will be used for something else or torn down. None of the facilities are in such poor condition that they cannot be repaired. The proposed project will repair approximately 1,000 tons of storage in sites selected by the GOGB. The degree of repairs required varies significantly from place to place, however, the approximate cost of renovation is \$7 per ton or a total of \$7,000. Labor is to be furnished by the GOGB.

Construction and repair will be carried out by CAL if they have the technical help available; if not it will be contracted out under CAL supervision. The facilities will be simple cement block structures with screened in ventilation around the top of all four walls.

Work on the Bissau facilities will begin in August 1977 and should be completed in time to receive the seed for the 1978 crop. Renovation activities can be initiated in August 1977 upon the completion of plans detailing which centers are to be renovated.

c) Qualifications and Scope of Work for Technical Assistance Advisor in Seeds

The end result of the grant agreement between A.I.D. and the republic of Guinea-Bissau will be a seed testing and quality control laboratory, two new seed storage units, 300 MT each (1/3 of one to be conditioned storage for experimental seed stocks) and a total of 1,000 MT renovated storage strategically located throughout Guinea-Bissau (from the existing project paper it is understood that 10 individual storage units are to be renovated).

For these components to become integrated into one complete seed program, a technical assistance advisor is required for a period of at least 12 months. His/her arrival in Guinea-Bissau should coincide with the anticipated target date set for the arrival

of equipment, renovation of the seed laboratory, construction of the two new seed storage units and renovation of as many of the outlying seed storage warehouses as possible.

It is also advisable that at least two trainees from Guinea-Bissau be identified, one being designated the Seed Division (Section) Chief, and sent for training in Brazil (language facility) so that they will be available as counterpart staff during the organization and development of the seed program. See Annex G for further details on the scope of work and qualification requirements.

2. Plant Pathology

With a capability for selecting and storing seeds, it follows logically that selection should also be made on the basis of disease and insect resistance. This will require trained personnel and laboratory facilities which do not at present exist. Thus, another sector of priority is the area of plant pathology. There is no laboratory in Guinea-Bissau for determining plant diseases and few, if any, trained personnel in this important field. The project will, therefore, provide a laboratory facility with rudimentary equipment to implement this program. Laboratory space will be made available by GOGP (close to the location of the Seed Laboratory).

The program provides a capacity for identifying and recommending treatment and control of crop diseases. The laboratory will conduct investigations into the basic diseases of food crops. After the diseases have been identified, the technicians will communicate with research officials located at established research stations to obtain technical guidance on the preferred methods to control the diseases. Technical advice on rice will come from WARDA and IITA; advice on peanuts is available from Bambey, Senegal or IITA. The results of the investigations will be tested in government farms and, when appropriate controls are established and confirmed, the processes will be used in government agricultural demonstration farms. These farms will demonstrate to the farmer the proper manner of disease control. The government will supply material for disease control and in some cases the equipment to apply it (as they did with a rice program in the 1975 crop year).

The training for this program will begin in October 1977 by sending the head of the plant pathology department to the U.S. or appropriate place for observation, and two technicians for an intensive two-month course in basic plant pathology techniques. This is to be accomplished while there are still growing crops to be observed. The first technical assistance is to arrive in October-April-May 1978 to set up the laboratory and plan the future program.

The program will then proceed as per the time schedule with a completion date of June 1979. Total training will be 9 months and total technical assistance 12 months.

3. Land Reclamation

A final area selected for immediate attention is that of water control for land reclamation. Salt water tidal action penetrates for many miles inland and renders vast areas of tidal flats unproductive. Consequently, much of the area has never been farmed. If the tidal effect can be controlled, the amount of productive land available for agriculture will be greatly increased.

a) Background

Due to favorable climate, soils and rainfall, the southern portion of Guinea-Bissau is potentially one of the richest agricultural regions of the country. It is a coastal belt subject to flooding and strongly influenced by tidal action and salt intrusion up the broad estuaries of its rivers and streams. Vegetation consists largely of mangrove, thick forests, oil palms and rice fields. Each river has several smaller outlets separated by small flat islands. Tides are experienced as far as 50 km up river and water is salty to that point.

It is generally conceded that this region, with good soil, adequate moisture and good human resources has great agricultural potential. As a region, it produces more rice than any other in Guinea-Bissau. Success has been generally good but with certain specific problems. Networks of swamps and streams bisect the region making communications difficult. Salt intrusion into the lower lying tributaries is one of the primary limiting factors to growing rice in those areas.

The saline soil conditions are the result of salt water intrusion from the ocean during periods of low fresh water flow into the tributaries permitting salt water to intrude up the tributaries and deposit salt during the recession and evaporating period. The rains, which usually start in June, result in fresh water outflow from the tributaries, the salts are leached and washed out of the soil by the rain and fresh water flow. The farmers in these areas have developed special cultivation and techniques that permit them to successfully grow rice under those saline soil conditions. Success of this activity is contingent on the requirement that adequate rainfall is available to leach out and remove the soil salts. The system of utilizing a small dam or barrier dike near the outlet of the tributary to prevent saline water intrusion has been used in Guinea-Bissau for many years. First, traditionally, this is done by means of hand-built "crib-type

barriers," which are time consuming and unreliable at lengths of more than 10-20 meters. Secondly, the Portuguese and now the CAL have been constructing low-barrier dikes by means of earthen structures with culverts to act as outlet works during the rainy season and closed the rest of the year. They are usually built high enough to allow very small handmade continuations on the tidal flats to serve as safety or emergency outlets (blow-outs).

A primary objective of this component is to improve upon the methodology used in constructing these dikes. Though no documentation exists on the rate of failure with these structures, construction personnel have requested assistance to improve the existing practices; this will in turn raise the level of confidence in the success of dams and dike construction for farms.

The GOGB has requested such assistance as an intermediary step to more large-scale improvement of the region. They have decided to await the results of work by Dutch consultants in the neighboring Casamance before requesting more significant interventions.

To perform this work, the CAL uses Caterpillar tractors with bulldozers. No compaction equipment is available. The CAL has no low-bed highway tractor-trailer for transporting the crawler tractors. They borrow the one unit owned by the Department of Public Works often after considerable delay.

The CAL owns ten Caterpillar tractors of which four are down for repairs and two others are in need of parts. There are no spare parts in Guinea-Bissau, nor does CAL have foreign exchange to procure them.

Two representatives of CAT-Lisbon have inspected the equipment and made recommendations on a program to enable CAL to maintain the equipment they own at present and will own in the foreseeable future. These recommendations are in accordance with those previously made by the design team's mechanical engineer.

Therefore, the second primary objective of this component is to upgrade the material and human resources of the CAL to assure the capability to maintain the construction equipment required for the project.

b) Inputs

The project will provide 1) equipment; 2) technical assistance; and 3) participant training to enable the GOGB to survey, design, construct and maintain, small salt-intrusion barriers in

carefully selected sites in the southern region of Guinea-Bissau. The following equipment will be provided by A.I.D.:

- 1 D-6 tractor to complement the CAL equipment already available for the project;
- 2 compactors (towed-typed, sheeps foot);
- operating costs for the first year;
- a low-bed tractor-trailer to transport equipment;
- surveying, soils testing and concrete production equipment;
- a house trailer and Land Rover for technical assistance use; and
- spare parts, tools and facilities for repair of the equipment.

c) Technical Assistance

The project will provide one long-term advisor in small dam construction. His/her qualifications should include:

- 1) Candidate must be prepared to work under very adverse conditions with limited material resources, be in top physical condition, and fully understand the frustrations, hardships, etc., of working in the "interior" of a country such as Guinea-Bissau.
- 2) Earthwork and concrete construction supervision experience, including knowledge of testing soils for suitability and compaction.
- 3) Surveying ability (i.e., can operate transit, run levels).
- 4) Design experience in determining run-off, culvert and spillway design and key (cut-off) design. B.S. C.E. is preferred but not required.
- 5) Portuguese language capability: FSI S/2, R/2. If candidate has Spanish capability, should be considered for FSI Spanish to Portuguese short course. It must be emphasized that technical capability is of primary importance.

These qualifications are ordered in priority of importance. For example, number 4 the design capability can be augmented by visits by a REDSO, OMVS/Dakar or AID/W TDY engineer. However, the experience

in actual construction supervision number 2 would be difficult if not impossible to augment by TDY services. The Scope of Work is defined below by the description of implementation procedures in the implementation plan.

In addition to the long-term small dam construction advisor, the project will provide short-term advisors in the area of equipment maintenance. Two mechanics will be procured directly from CAT-Lisbon as will the first tranche of parts required to put all of CAL's CAT equipment in working order. In this first phase of their work, they will work with CAL mechanics training them in the basic maintenance and repair of CAT and other equipment on site and refreshing the CAL chief mechanic's knowledge of newer CAT equipment.

In coordination with the CAL chief mechanic, they will also propose an inventory of spare parts which should be kept in stock in the parts stockroom to be provided under the project.

The second phase of their work will come after the shop and stockroom is completed, the additional spare parts have arrived, and one or two selected mechanics have been in Lisbon for participant training (see below).

In this second phase, they will give the CAL mechanics and stockmen advanced training in maintenance and repair to enable them to fully refurbish CAT equipment. Furthermore, they will train them in the operation of the stockroom: making inventories, ordering parts, etc.

d) Training

Participant training will be provided to one or two CAL mechanics as recommended by the CAL and approved by the Country Development Officer. In between Phase I and II of the maintenance technical advisors; they will be sent to Lisbon for a three-week course as recommended by the CAL representative.

Furthermore, future participant training programs are anticipated for upon the recommendations of the dam construction expert with the approval of the CAL and Country Development Officer. For example, it may be extremely valuable to the continued success of the project to provide the dam construction expert's counterpart with academic training.

e) Methodology

The methodology will generally conform to the following outlines:

Reconnaissance: The CAL has chosen several sites under consideration for construction of barrier dams and dikes in the southern region of Guinea-Bissau. Upon the arrival of the dam construction expert (DCE), reconnaissance will begin to determine which sites satisfy the criteria defined in paper (see Technical Analysis). The DCE will work closely with his counterpart to prioritize and work out a schedule for survey, design and construction of the dams and their appurtenances. Especially important will be assuring availability of impervious material within bulldozer working distance of the site.

Surveys: They will then begin work on the survey of the one or more sites as is convenient. Such a survey will include: a topographic survey of the dam site 50 meters upstream and down, a foundation survey to determine depth to good foundation, a ridge line survey and mapping of the drainage basin upstream of the dam, a centerline survey and stake-out of the dam and major dikes, and any other survey work the DCE considers necessary.

Design: The design of the small dam has but a few critical requirements. Most critical is determining the run-off from the drainage basin. Given the limited data available, a suitable rainfall intensity will be chosen for each sight by the DCE and a USAID engineer with knowledge of hydrology. The rational method will be used to calculate run-off from which culvert will be designed by appropriate methods. The run-off calculated in this manner will be quadrupled to determine the size of emergency spillway or other emergency outlet and in all cases the method now in practice of building the dam higher than surrounding dikes to protect it will be continued as an added safety factor.

The key will be designed a minimum of two meters deep and will simply be dimensioned to allow full coverage compaction by equipment. Additional design of key is welcome but not necessary for the size limits to be used in this project.

Construction: All organic material including highly organic clays will be removed from the construction area. The area will be dried by appropriate means, e.g. coffer dams to stop tide and any perennial streamflow, with appropriate temporary diversion (diversion should be avoided as much as possible by site selection).

Slope stakes (offset) will be placed while key is being excavated and refilled with clayey material which has been tested by appropriate

method(s) to determine maximum density and optimum moisture requirement. Fill will be placed in lifts (each lift scarified) no greater than 20 cm and wetted adequately (approximately 15% moisture) to obtain a minimum of 90% proctor or equal.

After key is filled, the remainder of the dam will be constructed in the same manner filling from slope stake to slope stake in 20 cm lifts from one end to the other of the structure until a homogeneous impervious unit is complete.

Structures (culverts, spillways, etc.) will be constructed as much as possible in natural earth. If placed in dam itself, they shall be placed only after dam is complete. Then cuts shall be made as precisely as possible and backfill compaction shall be rigorously field tested. All culverts shall have end walls and cut-offs. Concrete mix shall be tested in Dakar and rodded or vibrated as appropriate.

Small dikes and rice fields may be cleared and constructed by hand, however, the DCE is encouraged by the CAL to determine a more efficient manner of accomplishing these tasks.

After completing the first system, a team will arrive to evaluate the project and make recommendations for improving the methodology. This may include increased expenditures on equipment, training or technical assistance. Nonetheless, the work will continue through the dry season. In the final month of the DCE's contract, consultation will take place to evaluate completed work and future directions.

4. Perspective

By the end of the project, it is expected that (1) the quality of seeds used by Guinean farmers will be improved (i.e. will produce more and better crops), (2) a plant pathology program will be accurately identifying plant diseases and the means for eradicating them, and (3) the CAL will have acquired the capability to properly survey, design, construct and maintain small earthenbarrier dikes and dams for rice fields.

The equipment should be ordered in September 1977 for delivery between January and February of 1979. Technical assistance for three months, and one month of observation training, will be provided. These technicians will work with Guinean officials in establishing a land reclamation plan, which determines subproject criteria and priorities. It is expected that during the life of the project, the AID funded equipment will open up a minimum of 4,000 ha. of new agricultural land.

The above three programs reflect initial assistance which will require additional study and training to develop related activities desired by the GOGB. Funds are provided (\$26,000) for TDY consultants in such areas as ground water development, entomology, farm demonstration techniques, and agricultural research. Short-term observation programs for GOGB officials will also be arranged.

The consultants will provide GOGB-CAL officials guidance on developing the institutions required for more complete functionings of the agricultural food crop and water development sectors. It is anticipated that four consultants will be required for 4-6 weeks each (\$20,000). It is also planned that senior officials of the CAL and the commissariat of Economic Planning would travel to the U.S. and other African countries for observation of agricultural institutions and planning. Travel and per diem for five persons of 6 weeks each in agricultural institutional development is contemplated at \$20,000.

III. Project Analyses

A. Technical Analysis

Although no sector assessment has been completed, the assistance offered in the revised project is needed and will be well utilized. The GOGB has given itself the role of being sole supplier of inputs and technology to the poor Guinean farmer. There is no large or medium scale farming in the country other than cooperatives, thus, for economic as well as social reasons, improving small farmer production is a matter of great importance.

Seed, plant pathology, and land reclamation were the areas mutually selected by AID and the GOGB for initial attention. It was understood by both parties that such assistance would probably form the core of future broader scope agricultural program.

The technical assistance and training furnished through this project respond to the realities of the present Guinean situation. Qualified technicians in the CAL are few and generally have limited educational background. Thus, assistance and training must be responsive to the absorptive constraints of these individuals. However, because the state of agricultural technology in Guinea Bissau is so elementary and because it is felt that minimal technological advancement can result in impressive production gains, the low level of assistance being provide will be highly meaningful and is suitable to the project need. In addition, this program will coordinate with UN, British, French and other efforts already underway to support the agricultural development of Guinea Bissau.

Specifically, only two areas of intervention require more analysis:

- 1) Land Reclamation and
- 2) Construction Practices.

I. Land Reclamation: The problems involved in reclaiming land by large scale programs of salt-intrusion barriers are numerous. For example, USAID is now financing a feasibility study in the neighboring Casamance (Baïla Study) region of Senegal. There is one overriding problem to be addressed in this study: how to manage mangrove soils which become very acidic when permitted to dry. Fortunately, in the southern region of Guinea-Bissau, the soils are not acidic, which eliminates this problem all-together. Furthermore, the Land Reclamation component of this project contemplates work only in "fringe areas" where salt-intrusion is not as difficult to deal with and where construction methodology can be

improved upon by relatively simple interventions as outlined in the project description. This methodology is considered sound in conjunction with the criteria to follow.

Criteria:

1. Dams/Dikes will be designed to have no more than 3 metres of total hydraulic head acting upon them at any given time.
2. Dams/Dikes over 1 metre high will have a key.
3. No dam will be considered of a length of more than 50 metres unless it is 1 metre or less high.
4. Side-slopes shall be at least: 1) upstream and downstream since erosive action will take place on both sides; 2) minimum crest widths will be 3 metres or dams/dikes over one metre high.
5. Methodology will include appropriate survey/design, as determined by the Dam Construction Expert TA, before construction begins.

2. Construction Practices: There is considerable building construction contemplated in this project, all of which consists of small simply built structures and some refurbishment. The quality of construction in Guinea-Bissau varies greatly, but in general is better than in many other African countries. Structures are in general single story with concrete block walls, concrete slab floors, reinforced concrete columns and beams, and creosated timber truss and purlim roof structure with corrugated metal or asbestos sheet roofing. All new construction must have plans prepared or approved by Public Works. The quality and detail of the construction drawings is excellent in general. Plans, itemized cost estimates (for force account) or itemized bid (for contract) will be approved by a USAID engineer before construction begins.

Construction Management:

The CAL will provide day-to-day construction inspection based upon criteria developed jointly between the CAL and USAID engineer. The designated inspector will prepare monthly estimates of work complete.

Disbursement of funds for construction will be based upon these monthly estimates and the project approved by USAID and upon the itemized cost estimate or itemized bid presented to CDO/Bissau with the plans and approved by a USAID engineer.

A USAID engineer will monitor the project with three visits: 1) at time of ground-breaking, 2) at approximately 50% complete and 3) at completion. The USAID engineer will check any monthly estimates presented between his visits to verify acceptability.

B. Price and Design Analysis

It is the judgment of the Project Development Team that the seed storage to be built and repaired will be of appropriate design for Guinea Bissau and is reasonably costed in relation to similar construction observed in the country.

Cost estimates for the structures involved have been based upon unit costs of recently built structures. Unfortunately not enough structures have been built recently to obtain reliable figures. Also, the extra costs incurred due to work stoppage, due to lack of materials and finally lack of accurate construction cost accounting makes cost estimating very difficult in Guinea-Bissau. However, after the first year of the project if cost overruns occur they will be programmed into the FY 78 funds (assuming funds are available). In the future estimating should become less uncertain.

The laboratory equipment to be purchased is necessary and sufficient for the resolution of problems involved and is priced in accord with the most recently available price data including shipping costs.

The equipment involved is the minimum sufficient to do the work involved and is priced according to recent U.S. price data, plus shipping.

One such dam was constructed in the dry season of 1976 using a D-6 and D-4 size tractor combination borrowed for the Public Works Department. In one month of operation with this equipment a dam was built across a small stream which reclaimed 500 acres of land for rice production. At \$100 per acre (which is a very conservative estimate of its value) this project has opened up \$50,000 worth of land (after it is cleared of brush and washed of salt - all hand labor). This process can be repeated in hundreds of locations in the country. Once new land is opened, many new agricultural jobs will be created and food production will be increased, both very positive economic effects.

This project will make full use of existing technology in several ways. Technical assistance will be provided to orient development of the host country's potential and incorporate new methods and ideas into the agricultural system. Opportunities will be provided for local technicians to travel to the U.S. or other suitable places to receive training in their areas of specialization. Literature will be provided where necessary to build up a library resource in these areas.

Guinea Bissau can be expected to continue these projects once they are implemented because they compose a vital part of what is needed to develop the critical agricultural sector.

C. Social Analysis

This project is expected to increase the productivity of agriculture in Guinea-Bissau. It is, therefore, expected to increase income of farmers and others involved in the agricultural sector, provide more jobs,

and generally raise the living standard of the country's population. Providing an increased capacity for earning foreign exchange will lead to an increased availability of essential import items which are often unavailable on the local market.

The GOGB has a very egalitarian position toward women and has given them a full and complete role during their liberation struggle. That attitude and approach carries over to the part women play in the GOGB which includes several women in influential positions. We feel confident that the GOGB will give women an opportunity to participate in the project's operations and will, in discussions with the GOGB, make our interest in their doing so clear.

D. Economic Analysis

The economic justification for this project is not quantifiable because of a general lack of data. However, the activities supported herein will raise incomes of local farmers, provide more jobs, improve nutrition through expansion of the food supply, increase foreign exchange earning capacity, and lead to a better quality of life in Guinea-Bissau.

In some aspects of the project, like land reclamation and flood control, the direct returns from the operation of the equipment furnished can pay more than the cost of the equipment. In other areas the eventual returns on equipment investment may be even greater, but it will be over a longer period of time.

Project activities are of the highest national priority of the GOGB. There is no doubt that for as long as Guinea-Bissau remains a predominantly agricultural country, the project will continue to have government support. Thus, when the AID participation under this project is complete, personnel trained and facilities developed with project funds will continue to be supported adequately.

E. Engineering Analysis

Under the project, the following construction activities are foreseen:

a) Repair of existing facilities. Among the seed storage warehouses which exist in various parts of the country, and which are in need of repair, approximately 10 units (total storage capacity of 1,000 MT) will be repaired and thus brought into operating conditions. The damage which varies in extent considerably from building to building is mainly to the roof and doors. It is anticipated that a mobile work team of the Public Works Department, which will have roof tiles and other required materials, can accomplish the necessary work.

b) Construction of new seed storage warehouses. The project calls for the construction of total of 600 MT of new seed storage capacity. In general, it is intended to follow the type of facilities already in use in the country and to adapt this structure as a prototype for modular construction of two 300 ton warehouses each of which would be 30 meters in length and 15 meters in width.

The two new warehouses will be located at the "Granja Pessebe" on the outskirts of the town of Bissau. As to the technical details, the buildings will have 20 cm thick concrete or adobe block walls, with reinforced columns connected at the top by a firm beam of the same material. The roof construction will be of treated imported timber, the roof itself of baked brick tiles. Doors will be of native wood and will slide in top and bottom steels rails. Near the top of the wall, there will be ventilation openings filled with wire mesh to prevent the entry of rodents and insects. No utilities, such as water and electricity, are needed and no foundation problems are anticipated.

It thus can be assumed that the construction is technically feasible and that it can be completed within reasonable time (about 4 months per warehouse).

c) Construction Management

Planning and execution of the construction will be carried out by the Commissariat of Agriculture and Livestock for reasons explained in Annex B. In view of the sometimes remote locations of the existing warehouses on which repairs will be done, attention must be given to problems of logistics, e.g. provision of food and shelter for the workers and timely procurement and delivery of construction materials. The latter also applies to the two new warehouses to be constructed. In this regard, it is recommended that AID exercise certain advisory functions so as to ensure that no delays will be encountered in execution.

d) Construction Costs

As mentioned earlier, the amount of repairs to be done on the 10 existing warehouses varies considerably from unit to unit, from replacing a few missing tiles to structural repairs on the roof and other parts of the building. An average cost of \$7 per ton is being assumed.

In regard to the new warehouses, a cost per ton of storage of \$130.00 is considered a good approximation.

IV. Implementation Planning

The implementing agency for this project will be the Commissariat of Agriculture and Livestock (CAL)

Plans of Work

A. IMPLEMENTATION PLAN - SEED LABORATORY

<u>I. First Year</u>	<u>Month</u>
1. Revision of PP (assumed Sept.1,1977)0	
2. Develop equipment list and specifications for seed laboratory	
3. Develop design for seed laboratory renovation including office space and storage	2
4. Develop design for seed storage units - two 300 MT with conditioned storage designed for 1/3 of one of the 300 MT units.	2
5. Order seed laboratory and seed storage equipment	1
6. Identify two trainees	2
7. Initiate renovation of seed laboratory	2
8. Initiate construction of two 300 MT storage units	2
9. Monitor renovation and construction progress by CDC	1-8
10. Initiate search for technical advisor	4
11. Two trainees depart for training, possibly Brazil in view of common language	5
12. Seed laboratory renovation completed	3
13. Seed storage construction completed	3
14. Seed laboratory equipment arrives (about Feb. 1978)	3
15. Conditioned seed storage equipment arrives	3
16. Technical advisor arrives	3
17. Two trainees return	9
18. Equipment installation and check out	10
19. Seed laboratory and storage units become operational	12

II. <u>Second Year</u>	<u>Month</u>
1. Schedule one week consultation by MSU seed specialist	13
2. Identify four trainees for 2 month training (probably Brazil)	13
3. Trainees depart for training	14
4. Technical advisor conducts in-country training, coordinates with FAO rice seed project at Contuboel, monitors out-lying seed storage units	12-24
5. Trainees return	16
6. Technical advisor assists in establishing laboratory routines and overall seed testing program	16-24
7. Two week in-country training course by two MSU contract consultants	18
8. Two trainees identified for BS degree in U.S. (English required)	22

B. IMPLEMENTATION PLAN - SOILS LABORATORY

	<u>Months</u>
1. Brazilian Government Started Giving Assistance to Soils Laboratory	
2. Design of Laboratory	
3. Trainee Selected and Sent to Brazil for Training	
4. Equipment Available in Brazil Ordered	
5. Laboratory Renovation Started	
6. Trainee returns	
7. Laboratory Renovation Completed	2
8. GOGB Requests Assistance from USAID - July 1, 1977	0
9. Project Paper Revision	.1
10. Equipment Ordered	2
11. Identify Three Trainees	3
12. Trainees Depart for 6 Month Course in Brazil	4
13. Trainees Return	6
14. Equipment Arrives	9
15. Brazilian Technicians Assist Installation	9
16. Laboratory Fully Functional	10
17. In-Country Training	

completed

C. IMPLEMENTATION PLAN - PLANT PATHOLOGY

	<u>Month</u>
1. Revision of Project Paper - July 18, 1977	0
2. Prepare Equipment List and Specifications	1
3. Prepare Design for Laboratory	2
4. Order Laboratory Equipment	2
5. Identify Three Trainees	2
6. Initiate Renovation of Laboratory	3
7. Monitor Renovation of Laboratory	3-9
8. Two Trainees Depart for Training(Africa or Brazil)	4
9. Initiate Search for Technical Advisor	2
10. Laboratory Renovation Completed	9
11. Equipment Arrives	9
12. Technical Advisor Arrives	9
13. Two Trainees Return	9
14. Equipment Installation and Check-out	10
15. Laboratory is Operational	11
16. Conduct Short Course - 2 Weeks In-Country	12
17. Trainees depart (see 5 and 8 above)	12
18. Trainees Return	18
19. U.S. Technical Advisor Completes Assignmen	21

D. IMPLEMENTATION PLAN - LAND RECLAMATION

Starting from the month of July 1977 as "0", the implementation should correspond to the following schedule.

<u>Activity</u>	<u>Month</u>
1. PIO/C Prepared for Original List of Equipment, Spare Parts, T.A.	0
2. Project Revision Completed	1/2
3. Prepare PIO/C and Order Spare Part Required Immediately	1/2
4. Project Revision Approved and PIO/C Revised Per PP Revision	1
5. PIO/C's & PIO/T's Prepared for CAT Mechanics, Dam Construction Expert (DCE), Additional Equipment (from PP revision)	3
6. Procure Services CAT Mechanics	3
7. Order All Equipment	3
8. Plans & Specs for Shop & Stockroom On-Hand (approval REDSO before starting construction)	3
9. Begin Recruitment DCE	3
10. Spare Parts Required Immediately Arrive	4 1/2
11. CAT Mechanics Arrive	5
12. Construction Begins on Facilities (F.A. or contract by CAL)	5
13. CAT Tractors Repaired, Basic Training Complete, Stockroom Inventory List Complete, PIO/C Prepared	7
14. Two CAL Mechanics Trained in Lisbon (not necessarily same time or course) 3 weeks	7

	<u>Month</u>
15. Procure Services CAT Mechanics (1 month before actually completion date of shop & stockroom)(PIO/T already prepared)	14
16. DCF in Country Begins Reconnaissance w/ counterpart	14
17. Construction Complete on Shop and Stockroom - REDSO approval	15
18. All Equipment Arrives	15
19. CAT Mechanic and Inventory Specialist Arrive to Set-up Shop and Stockroom and Give Advanced Training	15
20. Survey Begins	15
21. Design Begins	15
22. Shop, Stockroom and Inventory Operating, Advanced Mechanics Training Complete	16
23. Construction of Dams Begins	18
24. Construction First Dam Complete	20
25. Evaluation (Maintenance Program Initiated)	20
26. Survey, Design, Construction Continues Until	26
27. Consultation/Evaluation Extension of Project Considered	27

V. Evaluation

Evaluation of this project will be carried out on an annual basis. Both GOGB and A.I.D. officials will participate in the evaluation process. Criteria will be based on projections included in this Project Paper. A report of findings and recommendations will be made in the form of a Project Appraisal Report (PAR).

To supplement these in-house reviews, a special evaluation will be performed after the second year of the project to determine the effectiveness and suitability of A.I.D. inputs and to measure project progress against the output indicators given in the project design.

Any redesign of the project that may be necessary will be carried out jointly by the GOGB and A.I.D.

VI. Financial Plan and Analysis

According to the discussion with the GOGB officials, the following items and personnel are anticipated to be made available by the GOGB: (1) 10 buildings with a total storage capacity of 1000 m/tons; (b) adequate building space in Bissau for 1. a seed testing laboratory to be located in close proximity to an existing soils laboratory and 2. a plant pathology laboratory which should also be located as close as possible to the seed and soils laboratories; (c) access to the use of 4 Land Rovers including preventative maintenance; (d) use of 6 caterpillars, one watertank and trailer, and access to preventative maintenance; (e) approximately 4000 acres of land for reclamation (f) 40 technicians and about 200 farm laborers; (g) use of miscellaneous heavy and light duty equipment, office supplies.

Unfortunately, the GOGB is not able to provide at this time specific data on its financial setting. Nevertheless, the Project Development Team, in collaboration with the GOGB, was able to approximate and assign capital value to the following GOGB project inputs:

1) 10 Buildings/Seed Storage 1000 M/Tons		
\$123/ton x 1000	=	\$123,000
2) Laboratory Space for		
--Seed Testing		\$ 10,000
--Plant Pathology		\$ 10,000
--Soils		\$ 10,000
3) 6 Caterpillars (50,000@)		\$300,000
4) 40 Technicians		
--10 above 10th level		
\$300/mo. x 48	=	\$144,000
--30 at 10th level		
\$200/mo. x 48		\$294,000
5) 200 farm laborers		
--\$2/day x 800 days		\$320,000

6) Watertank and Trailer	\$ 5,000
7) Miscellaneous equipment, Spare parts, office supplies, and operating costs.	<u>\$ 35,000</u>
TOTAL	\$1,251,000

Annex D shows a more detailed budget to cover the project inputs. The GOGB will contribute \$1,251,000 (about 35 percent of the total). The AID contribution will total \$2,350,000 (or about 65 percent of the total) to finance:

1. The required equipment for construction, renovation, and land reclamation including 1 caterpillar D-6, 2 compactors, and adequate equipment for maintenance not borne by GOGB.
2. The purchase of basic equipment for the establishment of a conditioned storage room, two laboratories and the seed storage units.
3. The construction cost of renovating 10 seed storage units, building 2 new seed storage units and renovating space for 2 laboratories.
4. The provision of short-term consultant services for the land reclamation component, the planning and programming of the laboratories and for training.
5. The training of mechanics, seed specialists, laboratory technicians, plant pathologists, soil conservation technicians and administrative personnel to carry out the project.

The financial plan is presented below in Tables A and B which is a summary of the projects total cost including host country and USAID contributions. The total cost of the project is \$3.601 million. The U.S. share of the project is approximately 65%. Most of the GOGB input is "in kind," i.e., the labor and land are already in place, as are administrators.

REPUBLIC OF GUINEA-BISSAU

AGRICULTURE DEVELOPMENT

PROJECT N° 657-0002

TABLE A

PROJECT BUDGET

<u>PROJECT INPUTS</u>	<u>FY '77</u>		<u>FY '78</u>	<u>FY '79</u>	<u>TOTAL</u>
	<u>1st PART</u>	<u>2nd PART</u>	<u>ESTIMATE</u>	<u>ESTIMATE</u>	<u>ESTIMATE</u>
Tech. Asst. Contracts	\$100,000	\$148,000	\$166,000	\$100,000	\$514,000
Direct Training	42,000	68,000	108,000	100,000	318,000
Equipment	266,000	186,500	400,000	100,000	952,500
Heavy equip. & parts	(250,000)	(120,000)	(-)	(-)	(-)
Laboratory Equipment	(16,000)	(60,500)	(-)	(-)	(-)
Building Equipment	(-o-)	(60,000)	(-)	(-)	(-)
Local Cost	92,000	60,000	100,000	100,000	352,000
Construction	(88,000)	(50,000)	(-)		(-)
Training	(4,000)	(4,000)	(-)		(-)
OPR Cost	(-o-)	(6,000)	(-)		(-)
Contingency	-o-	37,500	76,000	100,000	213,500
	<u>\$500,000</u>	<u>\$500,000</u>	<u>\$850,000</u>	<u>\$500,000</u>	<u>\$2,350,000</u>

TABLE B

SUMMARY COST ESTIMATE AND FINANCIAL PLAN
(US \$ 000)

PROJECT PAPER

Source	AID		Host Country		Total
	FX	IC	FX	IC	
Use					
1. Technical Assistance	514.0			758.0*	514.0
2. Direct Training	318.0				1076.0
3. Equipment	952.5	352.0		493.0	1797.5
Inflation and Contingency	213.5				213.5
Total	1998.0	352.0		1251.0	<u>3601.0</u>

*includes salaries for technicians, mechanics, farm labor and administrative staff.

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

Life of Project: _____ to FY 80
From FY 77
Total U.S. Funding \$2.350 million
Date Prepared: _____

Project Title & Number: AGRICULTURAL DEVELOPMENT

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS												
<p>Program or Sector Goal: The broader objective to which this project contributes:</p> <p>To provide a supply of food sufficient to feed the population of GB and eventually to establish exportable surpluses to earn foreign exchange.</p>	<p>Measures of Goal Achievement:</p> <ol style="list-style-type: none"> 1. New plant varieties are providing increased productivity in at least two crops by 1980. 2. Peanut exports increased by 20% by 1980. 3. Rice imports are eliminated by 1980 and exports begun. 		<p>Assumptions for achieving goal targets:</p> <ol style="list-style-type: none"> 1. Climate pattern will remain stable. 2. Population growth will remain at estimated 2%. 3. Demographic distribution will remain constant. 4. GOGB will maintain high priority for increasing agricultural production. 												
<p>Project Purpose:</p> <p>To provide GOGB with supplemental assistance to increase agricultural production including seed improvement, identification and control of plant diseases, and land reclamation.</p>	<p>Conditions that will indicate purpose has been achieved: End of project status.</p> <ol style="list-style-type: none"> 1. Reduction in seed imports. 2. Established capacity to process, package and store seeds. 3. Established use of controlled water irrigation plots. 4. Physical soil analysis used as a basis for establishment of irrigation systems in reclaimed lands. 5. Established capacity to identify and recommend treatment for plant diseases. 	<p>Baseline information to measure progress will be developed during project implementation.</p>	<p>Assumptions for achieving purpose:</p> <ol style="list-style-type: none"> 1. Socialized system will enhance rapid adoption of recognized agricultural advances. 2. Currently used seed varieties are not the most efficient for prevalent conditions. 3. Enough fresh water resources exist in GB to meet agriculture irrigation needs. 4. Technological interventions can reduce salinity problems. 5. Geological Dept. has existing capacity to analyze phys. properties of soils for irrigation prol. in reclaimed land. 6. Once plant diseases are identified GOGB will have the means to apply recommended solutions. 												
<p>Outputs:</p> <ol style="list-style-type: none"> 1. Establishment of lab facilities with space for seed testing, plant pathology, and soils conservation. 2. Establishment of two 300 MT seed storage facilities at Pesabe and recuperation of 1000 MT storage capacity in selected locales around the country. 3. Short term training in seeds, plant pathology soils cons. & land reclamation. 4. Short term tech. assistance in seeds, plant pathology and land reclamation. 5. Long term training to B.S. Level. 6. Execution of large scale dike and dam land reclamation projects. 7. Guidance on additional agricultural development. 	<p>Magnitude of Outputs:</p> <ol style="list-style-type: none"> 1. Seed testing, soils conservation and plant pathology laboratories operating <ul style="list-style-type: none"> - Part. Train. Schedule Complete - Equipment in place - Pilot projects initiated 2. Two 300 M/T seed storage constructed and ten 1000 M/T units renovated <ul style="list-style-type: none"> - Construction & Renov. begin Dec. 76 - Construction & Renov. complete March 78 3. Short term T.A. in seeds, plant path. and land reclaim. complete assignments. 4. Land reclamation component opens approx. 4,000 ha by E.O.P. 5. Two participants return from U.S. with B.S. Degrees. 		<p>Assumptions for Achieving Outputs:</p> <ol style="list-style-type: none"> 1. Central lab facilities will serve country's needs. 2. GOGB will have high priority for production of improved seeds. 3. D-6 & compactors will last at least 10 years and will open up at least 1500 ha. per yr. during equipment life. 4. GOGB will establish national seed testing program. 5. GOGB will make available appropriate candidates for short term training. 6. AID Rep will provide adequate long term day-to-day management of program. 7. GOGB has existing maintenance facilities and capacity for D-6, and compactors. 												
<p>Inputs:</p> <p>GOGB: a.) land and building; b.) personnel; c.) appropriate policy determinants; d.) transportation for plant and land reclaim.; e.) water tank and trailer</p> <p>USAID: a.) lab. facilities & equip.; b.) 1 D-6 & spare parts, 2 compactors and 2 sheeps-foot roller compactor; c.) short & long term training; d.) short term tech. assist. & consult.; e.) 2 new seed storage fac. & 10 renovated units for storage.</p>	<p>Implementation Target (Type and Quantity)</p> <table border="0"> <tr> <td>A. T.A. Contracts</td> <td>\$ 514,000</td> </tr> <tr> <td>B. Direct Training</td> <td>318,000</td> </tr> <tr> <td>C. Equipment</td> <td>952,500</td> </tr> <tr> <td>D. Local Costs</td> <td>352,000</td> </tr> <tr> <td>E. Contingency</td> <td>213,500</td> </tr> <tr> <td>Total</td> <td>\$ 2,350,000</td> </tr> </table>	A. T.A. Contracts	\$ 514,000	B. Direct Training	318,000	C. Equipment	952,500	D. Local Costs	352,000	E. Contingency	213,500	Total	\$ 2,350,000		<p>Assumptions for providing inputs:</p>
A. T.A. Contracts	\$ 514,000														
B. Direct Training	318,000														
C. Equipment	952,500														
D. Local Costs	352,000														
E. Contingency	213,500														
Total	\$ 2,350,000														

Annex B

Initial Environmental Examination

Project Location: Guinea-Bissau

Project Title: Agricultural Development

Funding: FY 1977 \$1 million

Life of Project: \$2.35 million

IEE Prepared by: George Thompson, REDSO/WA

Environmental Action Recommended: Negative Determination

Concurrence:

Date:

E. Dennis Conroy, AFR/RA

E.D. Conroy

9/1/77

Assistant Administrator's Decision:

APPROVED:

[Signature]

DISAPPROVED:

DATE:

9/1/77

Clearance: AFR/DR/SDP, David Dibble

ANNEX B

Initial Environmental Examination

A. OVERVIEW

The proposed project is directed toward the improvement of seed production and land reclamation in order to increase agricultural production. It is a four year effort which will be continued after completion of AID participation. Emphasis is placed on project inputs that will result in a better use of land subject to saline soil conditions and of seed production and crop maintenance. To this end, the project proposes to finance: (1) acquisition of equipment including one caterpillar and necessary agricultural implements; (2) required equipment to establish the seed testing laboratory and the plant pathology laboratory; (3) basic equipment to supplement the soils laboratory; (4) limited technical assistance; and (5) training to insure continuity and success of the project.

Several sites have been selected by the GOGB and AID for seed storage renovation and the construction of two new seed storage units. All land reclamation activities will take place over an estimated 4000 acres in the southern part of the country. Both the project development team and the GOGB have developed a set of criteria to be used in the selection and construction of dams and dikes. The seed testing, soils and plant pathology laboratory are all located in Bissau.

B. IDENTIFICATION AND EVALUATION OF ENVIRONMENTAL INPUTS

1. Construction Assessment

a) The new seed storages to be built are to be located on GOGB-CAL land at the Pessebe research station on the outskirts of Bissau. These buildings will be of the same type as present buildings at the station and will be located to have easy access to roads within the station. The proposed structures present no aspect which could be considered a hazard in terms of safety, health, or environment.

b) The repair of existing storages will consist of restoring them to operational condition with no change in shape, size or style. The proposed repair of these structures presents no aspect which could be a hazard in terms of safety, health, or environment.

2. Land Use and Water Quality

The process of building dams and dikes to control the tidal action in relation to fresh water streams and underground water supplies have a positive effect on the local environment in making unusable fertile land.

The dams will stop the saline tides from mixing with the fresh water in the streams and will stop the high tide from overflowing the salt water tidal flats above the dam. The soil thus affected can then be cleaned, washed by fresh water, and put into rice production. The useless salt flats are thus transformed into valuable land contributing to the food supply of the country.

The dikes along the streams above the dams control the flooding during the rainy season and because of the dam the water is always fresh. Thus, the combination of dike and dam can be used for double cropping and the tidal flats will yield still more food for the country. In stopping the tidal action by the dam the ground water above the dam is not subject to the suction of the tide and wells will begin to yield fresh water close to the rivers.

3. Atmospheric

The limited inputs provided under the project are not expected to have an adverse effect on the quality of air in the region.

4. Natural Resources

The primary natural resources used in the project are land, water and to a lesser degree, vegetation. Most of these resources in the area of the project have not been effectively used because of their setting along the low coastal plain. Their reclamation for the production of healthier strains of rice and other crops will benefit substantially the people of Guinea-Bissau while protecting their environment against salt-water intrusion and losses of soil fertility. Better quality of seeds and plant control will aid the people in eradicating such pest infestations as the rice-stem borer which reduce the nutritional quality as well as production capacity of the land.

5. Cultural

There are no adverse cultural impacts foreseen. Traditionally, the people have practiced the use of small dam or barrier dikes to prevent saline water intrusion. The assistance and training offered under the project respond to the realities and absorptive constraints of the present situation in Guinea-Bissau.

5. Health

By increasing the domestic production of basic foods through the three components of the project, there should be substantial increase in the level of nutrition of the relatively poor rural population.

General

There is no hazard to health, safety, or environment in any of the proposed structures or activities in this project. Thus, an environmental assessment is not necessary.

It is the opinion of the Project Development Team that the technical design of the project is adequate, that cost estimates are reasonable, and that adequate planning has taken place.

IMPACT IDENTIFICATION AND EVALUATION FORM

Impact
Identification
and
Evaluation

Impact Areas and Sub-areas 1/

A. LAND USE

- 1. Changing the character of the land through:
 - a. Increasing the population _____ M
 - b. Extracting natural resources _____ N
 - c. Land clearing _____ L
 - d. Changing soil character _____ H
- 2. Altering natural defenses _____ N
- 3. Foreclosing important uses _____ N
- 4. Jeopardizing man or his works _____ N
- 5. Other factors _____
- _____
- _____

B. WATER QUALITY

- 1. Physical state of water _____ H
- 2. Chemical and biological states _____ H
- 3. Ecological balance _____ N
- 4. Other factors _____
- _____
- _____

1/ See Explanatory Notes for this form.

2/ Use the following symbols:

- N - No environmental impact
- L - Little environmental impact
- M - Moderate environmental impact
- H - High environmental impact
- U - Unknown environmental impact

August 1976

IMPACT IDENTIFICATION AND EVALUATION FORM

C. ATMOSPHERIC

- 1. Air additives _____ N
- 2. Air pollution _____ N
- 3. Noise pollution _____ N
- 4. Other factors _____

D. NATURAL RESOURCES

- 1. Diversion, altered use of water _____ H
- 2. Irreversible, inefficient commitments _____ N
- 3. Other factors _____

E. CULTURAL

- 1. Altering physical symbols _____ N
- 2. Dilution of cultural traditions _____ N
- 3. Other factors _____

F. SOCIOECONOMIC

- 1. Changes in economic/employment patterns _____ H
- 2. Changes in population _____ M
- 3. Changes in cultural patterns _____ L
- 4. Other factors _____

IMPACT IDENTIFICATION AND EVALUATION FORM

G. HEALTH

- 1. Changing a natural environment _____ H
- 2. Eliminating an ecosystem element _____ N
- 3. Other factors _____
- _____
- _____

H. GENERAL

- 1. International impacts _____ M
- 2. Controversial impacts _____ N
- 3. Larger program impacts _____ H
- 4. Other factors _____
- _____
- _____

I. OTHER POSSIBLE IMPACTS (not listed above)

- _____
- _____
- _____

BUDGET ESTIMATESummaryA.I.D. Inputs**A. Technical Assistance Contracts**

1. Seed Improvement and Seed Storage
2. Plant Pathology
3. Land Reclamation
Two Mechanics Portugal
4. Agricultural Consultants

Man/Months

- 14 (over 2 years)
12 (over 2 years)
12 (over 2 years)
6 (over 2 years)

B. Direct Training

1. Seed Improvement
Seed testing & storage

Man/Months

- 66 (total of 12 months
for 6 trainers; total
of 54 months for 2 can-
didates for B.S.degree)

2. Plant Pathology
3. Land Reclamation
4. Soil Testing
5. Agricultural Planning

- 18 (over 2 years)
(6 high level part. @
6 weeks each)

C. Equipment

- Seed Laboratory Equipment
Basin Equip. and Supplies
Two Air Conditioners
Land Rover and Spare Parts
Typewriter
Conditioned Storage
Two Air Conditioners
One De-humidifier
Building Equipment
Shipping and Handling

2. Seed, Processing, & Distribution
3. Plant Pathology Laboratory
4. Soils Laboratory (shipping & handling included)

FY 1977		FY 78	FY 79	Total
1st part	2nd part	Estimate	Estimate	Estimate
500,000	900,000	850,000	500,000	2,350,000
100,000	148,000	166,000	100,000	514,000
48,000	32,000	70,000		
48,000		22,000		
4,000	66,000	70,000		
	30,000			
	20,000			
42,000	68,000	108,000	100,000	318,000
26,000	38,000			
8,000				
	18,000			
8,000	12,000			
266,000	186,500	400,000	100,000	952,500
5,000	2,850			
	1,000			
	9,350			
	300			
	1,000			
	2,500			
	2,000			
		100,000		
11,000	2,500			
	39,000			

5. Land Reclamation
 Equipment
 Spare Parts
 Building Equipment (shipping & handling included)

D. Local Costs

Construction (new)

1. Seed Storage

- (a) Two new storage buildings 300 MT
 each @ \$130/ton

- (b) Vapor barrier for conditioned storage
 section

2. Land Reclamation

- (Machinery Storage and Shop Facilities)

Building Renovation

1. Repair 1000 Tons of Seed Storage @ \$7/ton

- ✓ Remote Seed Laboratory

2. Renovate Plant Pathology Laboratory

Training In-country

1. Seed Improvement

2. Plant Pathology

3. Soils

O.P.R.

E. Contingency

	FY 1977		FY 78	FY 79	Total
	1st part	2nd part	Estimate	Estimate	Estimate
	190,000	70,000	300,000		
	60,000	50,000			
		6,000			
	92,000	60,000	100,000	100,000	352,000
	78,000				
		2,000			
		30,000			
	10,000				
		9,000			
		9,000			
	2,000	2,000			
	2,000				
		2,000			
		6,000			
	-	37,500	76,000	100,000	213,500

Proprietary Procurement Waiver

A waiver of the procurement source and origin requirement in Handbook 15 for grant funded commodities is recommended for one D6 tractor from Caterpillar (about \$85,000), spare parts for repairing 5 Caterpillar crawler tractors (\$50,000) and technical services of two mechanics (\$30,000). All of these items and services would be procured from an authorized Caterpillar dealer in Portugal for a total proprietary procurement of \$165,000.

Justification

The GOGB has standardized its heavy earth-moving equipment inventory with the Caterpillar line in order to attain efficiencies in maintenance capabilities and spare parts inventory. Presently, Guinea-Bissau has five bulldozer Caterpillar crawler tractors model D4 and four model D6. In order to undertake successfully the Agriculture Development Project, U.S. A.I.D. will provide one more model D6 as well as spare parts and related technical assistance.

Given the established trading patterns and equipment specifications, the distance, and the time requirements, it would not be cost-effective to import directly from Caterpillar sources in the United States. Adequate spare parts, maintenance and service facilities for equivalent U.S. equipment is not available in Guinea-Bissau nor in neighboring countries. Moreover, failure to waive the requirement for U.S. source grant-funded commodities would increase construction costs and delay completion of the project.

For the above reasons it is concluded that prohibition of procurement from the sources indicated above would seriously impede attainment of U.S. Foreign policy objectives and the objectives of the Foreign Assistance Program.

B. Waiver

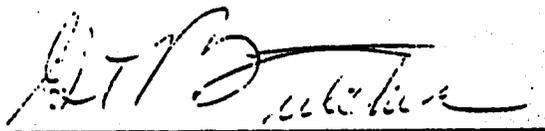
Based upon the justification set forth in the project paper the following waiver to A.I.D. regulations is hereby approved:

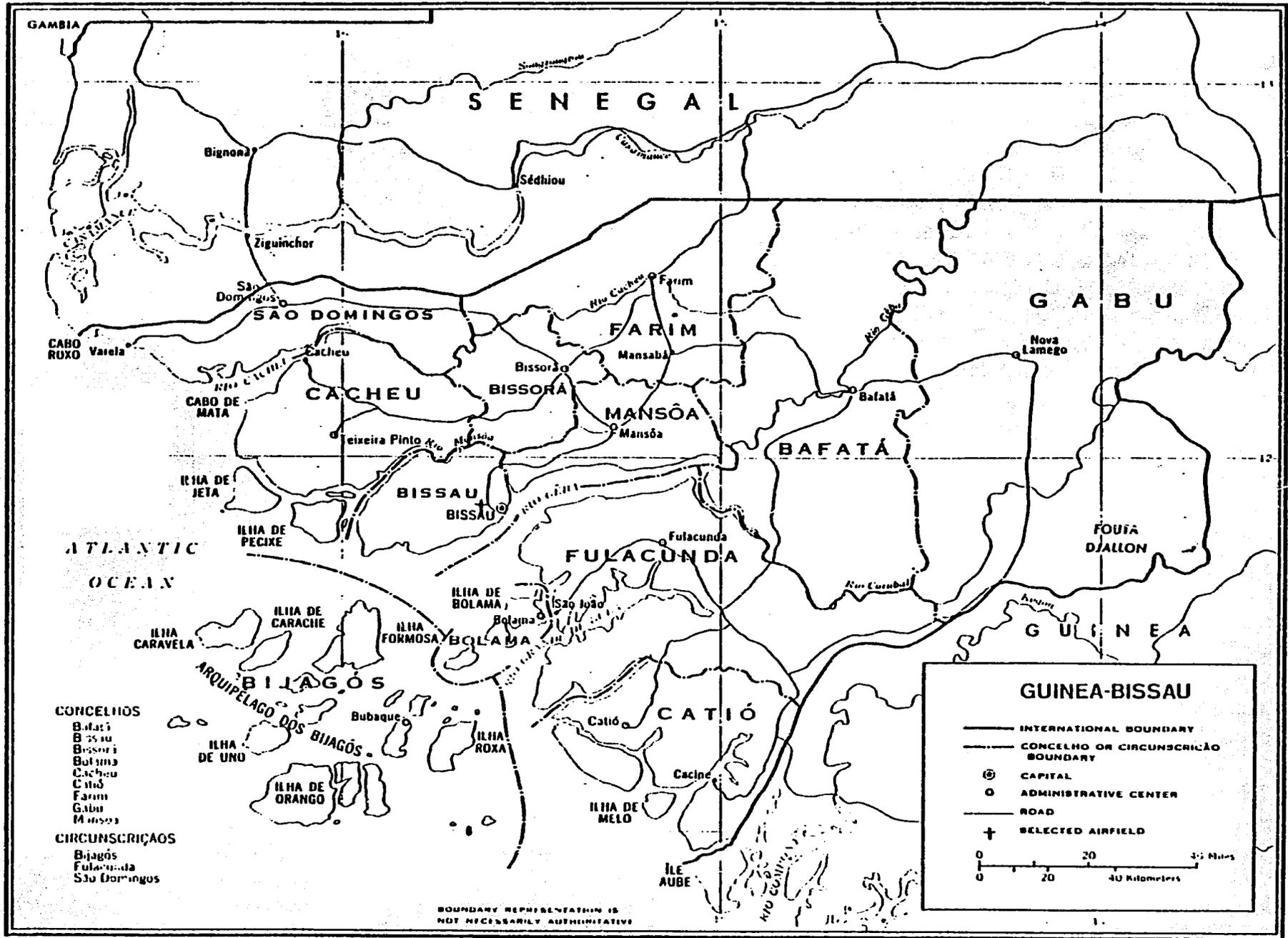
- A procurement source and origin waiver from Geographic Code 000 (U.S. only) to Geographic Code 935 (Special Free World) for the procurement of one D6 tractor, spare parts and technical assistance from an authorized Caterpillar dealer in Portugal for a total of \$165,000.

C. Covenants

The Project Grant Agreement shall contain a covenant providing in substance that the grantee will undertake to take appropriate measures to prevent the possibility of human consumption of seeds.

D. Based upon the justification set forth in the Project Paper, training for two Guinea-Bissauian participants in Portugal at the Caterpillar headquarters is approved.

 8/8/77
Goler T. Butcher, AA/AFR



59211 11 68

Qualifications

1. Portuguese language capability - FSI rating of 2.0.
2. BS or MS degree in Seed Technology or Agronomy Crops.
3. Working knowledge and concepts of seed testing routine and techniques to include purity and germination procedures and seed quality evaluation techniques.
4. Have a working knowledge of all general types of equipment found in a seed testing laboratory.
5. Possess a basic knowledge of seed storage principles and relationships among environmental factors and their effects on seeds.
6. Possess a basic understanding of controlled seed storage structures and equipment to include air conditioners and dehumidifiers.
7. Understand basic requirements for seed production and quality control procedures.
8. Basic research capability in seed testing and quality evaluation.
9. Preferably some experience in the field of seed technology in developing countries, especially in those with tropical climates.
10. Desirable to have some teaching experience in the field of seed technology coupled with the ability to impart knowledge to personnel with all levels of training and experience, including small farmers.
11. Possess ability to adapt to and work effectively within the conditions found in a developing seed program in a developing country.
12. Willingness to travel throughout the country.
13. Ability to adapt to the life style and living conditions found in Guinea-Bissau.
14. Good health to withstand the rigors of working in the tropics.

Scope of Work

1. The technical advisor's arrival in Guinea-Bissau should coincide with the arrival of the seed testing and storage equipment. He will be responsible for unpacking, setting up the equipment and checking it for functional capability. This phase should be coordinated with the two trainees previously identified in the time-frame plan.
2. The TA should initially establish two distinct seed testing procedures, purity analysis section and germination section. Within each routine, procedures, record keeping and reporting must be established.
3. He should provide assistance in setting up a simple administrative section for records, personnel and reporting.
4. He should be capable of verifying the operational capacity of the conditioned seed storage rooms, mainly the air conditioners and the dehumidifier. He should provide guidance in maintenance and up-keep of this equipment.
5. He should travel periodically to the out-lying seed storage warehouses to advise on proper storage, cleanliness and take samples of seed for quality evaluation.
6. He should coordinate and cooperate with the FAO rice seed multiplication project at Contuboel by sampling and testing their seed.
7. He should advise in setting up seed demonstrations at the village level. This could be coordinated with available extension-type personnel.
8. If possible he should assist in developing simple posters (literature) on the benefits of using improved seed in order to reduce planting rates and ensure adequate stands.
9. He should initiate attempts to determine the present seed supply situation in rice, peanuts, corn and sorghum and project future requirements. He may be able to obtain assistance in this area from economists, marketing advisors and crop production specialists.
10. He should conduct a continuous in-country training program, especially with counter-part personnel, and he should coordinate third-country training programs (assist in evaluating and selecting trainees).
11. Determine basic research needs and capacities for short range (2-5 years) and long range (5-10 years).

Possible Time-Frame Schedule for Plant Pathology

1. Revision of PP
2. Equipment list and specifications
3. Plant pathology laboratory design
4. Identify three trainees
5. Order laboratory equipment
6. Initiate renovation (or construction) of laboratory
7. Monitor renovation and/or construction.
8. Three trainees depart for training (suggested IITA)
9. Initiate search for Technical Advisor
10. Laboratory renovation/construction completed
11. Technical advisor arrives
12. Three trainees return
13. Equipment arrives
14. Equipment installation and check-out
15. Laboratory becomes operational
16. Possible pathological consultant-one week
17. Additional trainees identified for BS degree training

ANNEX H

Justification for Training In Brazil and Portugal

The project proposes to train two GOGB participants in Portugal at the Caterpillar headquarters where they could receive direct company training. This training is important to insure mechanical maintenance of equipment used under the project. Training in Portugal will facilitate the period of training required (common language). For similar reasons, the project also proposes to send eleven GOGB participants to Brazil where they can immediately begin to study:

- 1) six in seed specialization; 2) three in plant pathology; and
- 3) two in soils sciences.

Although these programs are available in the U.S. the language requirements and costs coupled with the projects' immediate needs for trained personnel justify the promotion of training in Brazil and Portugal.

ANNEX I

Certification Pursuant to Section 611(e) of the Foreign Assistance
Act of 1961, as Amended

I, James D. Maher, the principal officer of the Agency for International Development of Guinea-Bissau, having taken into account among other factors, the present and projected human and financial resources of the Government of Guinea-Bissau, including the training programs now underway and the capability within the Commissariat of Agriculture and Livestock, do hereby certify that in my judgement Guinea-Bissau has both the financial and human resources capability effectively to maintain and utilize the project: Agricultural Development, as revised.


James D. Maher
A.I.D. Country Development Officer
Guinea-Bissau

Agriculture Development Project - Guinea-Bissau

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6C(1) - COUNTRY CHECKLIST

Listed below are, first, statutory criteria applicable generally to FAA funds, and then criteria applicable to individual fund sources: Development Assistance and Security Supporting Assistance funds.

A. GENERAL CRITERIA FOR COUNTRY

- | | |
|--|---|
| 1. <u>FAA Sec. 116.</u> Can it be demonstrated that contemplated assistance will directly benefit the needy? If not, has the Department of State determined that this government has engaged in consistent pattern of gross violations of internationally recognized human rights? | Yes, the project will help small, poor farmers in increasing agricultural productions and will provide jobs to unemployed and underemployed groups. |
| 2. <u>FAA Sec. 481.</u> Has it been determined that the government of recipient country has failed to take adequate steps to prevent narcotics drugs and other controlled substances (as defined by the Comprehensive Drug Abuse Prevention and Control Act of 1970) produced or processed, in whole or in part, in such country, or transported through such country, from being sold illegally within the jurisdiction of such country to U.S. Government personnel or their dependents, or from entering the U.S. unlawfully? | No |
| 3. <u>FAA Sec. 620(a).</u> Does recipient country furnish assistance to Cuba or fail to take appropriate steps to prevent ships or aircraft under its flag from carrying cargoes to or from Cuba? | No |
| 4. <u>FAA Sec. 620(b).</u> If assistance is to a government, has the Secretary of State determined that it is not controlled by the international Communist movement? | Yes |
| 5. <u>FAA Sec. 620(c).</u> If assistance is to government, is the government liable as debtor or unconditional guarantor on any debt to a U.S. citizen for goods or services furnished or ordered where (a) such citizen has exhausted available legal remedies and (b) debt is not denied or contested by such government? | No |
| 6. <u>FAA Sec. 620(e) (1).</u> If assistance is to a government, has it (including government agencies or subdivisions) taken any action which has the effect of nationalizing, expropriating, or otherwise seizing ownership or control of property of U.S. citizens or entities beneficially owned by them without taking steps to discharge its obligations toward such citizens or entities? | No |

A

7. FAA Sec. 620(f); App. Sec. 10E. Is recipient country a Communist country? Will assistance be provided to the Democratic Republic of Vietnam (North Vietnam), South Vietnam, Cambodia or Laos? No
8. FAA Sec. 620(i). Is recipient country in any way involved in (a) subversion of, or military aggression against, the United States or any country receiving U.S. assistance, or (b) the planning of such subversion or aggression? No
9. FAA Sec. 620(j). Has the country permitted, or failed to take adequate measures to prevent, the damage or destruction, by mob action, of U.S. property? No
10. FAA Sec. 620(l). If the country has failed to institute the investment guaranty program for the specific risks of expropriation, inconvertibility or confiscation, has the AID Administrator within the past year considered denying assistance to such government for this reason? Yes
11. FAA Sec. 620(o); Fishermen's Protective Act, Sec. 5. If country has seized, or imposed any penalty or sanction against, any U.S. fishing activities in international waters, No
- a. has any deduction required by Fishermen's Protective Act been made?
- b. has complete denial of assistance been considered by AID Administrator?
12. FAA Sec. 620(q); App. Sec. 504. (a) Is the government of the recipient country in default on interest or principal of any AID loan to the country? (b) Is country in default exceeding one year on interest or principal on U.S. loan under program for which App. Act appropriates funds, unless debt was earlier disputed, or appropriate steps taken to cure default? No
13. FAA Sec. 620(s). What percentage of country budget is for military expenditures? How much of foreign exchange resources spent on military equipment? How much spent for the purchase of sophisticated weapons systems? (Consideration of these points is to be coordinated with the Bureau for Program and Policy Coordination, Regional Coordinators and Military Assistance Staff (PPC/RC).) An August 10, 1977 International Monetary Fund Report shows that in 1976 the GOGB allocated about 19 percent of its Central Government Budget for defense expenditures. During the same year, the GOGB allocated 38 percent of its central budget for activities in Agriculture & Natural Resources, communications and transportation, public works, health and welfare, and educational culture.

- A
14. FAA Sec. 620(t). Has the country severed diplomatic relations with the United States? If so, have they been resumed and have new bilateral assistance agreements been negotiated and entered into since such resumption? No
 15. FAA Sec. 620(u). What is the payment status of the country's U.N. obligations? If the country is in arrears, were such arrearages taken into account by the AID Administrator in determining the current AID Operational Year Budget? As of April 30, 1977 Guinea-Bissau has been assessed \$131,595 for UN dues during 1975 & 1976. However, Guinea-Bissau is not subject to Article 19 of UN Charters since the country has been a UN member for less than two years.
 16. FAA Sec. 620A. Has the country granted sanctuary from prosecution to any individual or group which has committed an act of international terrorism? No
 17. FAA Sec. 666. Does the country object, on basis of race, religion, national origin or sex, to the presence of any officer or employee of the U.S. there to carry out economic development program under FAA? No
 18. FAA Sec. 669. Has the country delivered or received nuclear reprocessing or enrichment equipment, materials or technology, without specified arrangements on safeguards, etc.? No
 19. FAA Sec. 901. Has the country denied its citizens the right or opportunity to emigrate? No

B. FUNDING CRITERIA FOR COUNTRY

1. Development Assistance Country Criteria

a. FAA Sec. 102(c), (d). Have criteria been established, and taken into account, to assess commitment and progress of country in effectively involving the poor in development, on such indexes as: (1) small-farm labor intensive agriculture, (2) reduced infant mortality, (3) population growth, (4) equality of income distribution, and (5) unemployment.

b. FAA Sec. 201(b)(5), (7) & (8); Sec. 208; 211(a)(4), (7). Describe extent to which country is:

- (1) Making appropriate efforts to increase food production and improve means for food storage and distribution.
- (2) Creating a favorable climate for foreign and domestic private enterprise and investment.

Guinea Bissau is a new country and it does not have a development plan. Yet the Government has indicated its commitment to socio economic development through programs in the priority area of agriculture, education and health. Baseline information is not available yet.

The Govt. of GB is engaged in several programs to increase rice production, the countrys main staple, and in a land reclamation, seed multiplication and food storage program to increase overall agricultural production. Various donors, including the UNDP are assisting the Govt. in these efforts.

81b

- (3) Increasing the public's role in the developmental process.
- (4) (a) Allocating available budgetary resources to development.

(b) Diverting such resources for unnecessary military expenditure and intervention in affairs of other free and independent nations.
- (5) Making economic, social, and political reforms such as tax collection improvements and changes in land tenure arrangements, and making progress toward respect for the rule of law, freedom of expression and of the press, and recognizing the importance of individual freedom, initiative, and private enterprise.
- (6) Otherwise responding to the vital economic, political, and social concerns of its people, and demonstrating a clear determination to take effective self-help measures.

The GOGB is providing employment opportunities to its labor force, within the limitations of its resources.
(a) The Government of Guinea-Bissau is financing a significant share of the local costs of all development projects, particularly those in agriculture and education.
(b) No.

Guinea-Bissau is a new country. Its socio-economic reforms are evolving.

See 4 and 5 above.

c. FAA Sec. 201(b), 211(a). Is the country among the 20 countries in which development assistance loans may be made in this fiscal year, or among the 40 in which development assistance grants (other than for self-help projects) may be made?

Guinea-Bissau is one of the 40 countries in which development assistance grants may be made.

d. FAA Sec. 115. Will country be furnished, in same fiscal year, either security supporting assistance, or Middle East peace funds? If so, is assistance for population programs, humanitarian aid through international organizations, or regional programs?

No.

2. Security Supporting Assistance Country Criteria

N.A.

a. FAA Sec. 502B. Has the country engaged in a consistent pattern of gross violations of internationally recognized human rights? Is program in accordance with policy of this Section?

N.A.

b. FAA Sec. 531. Is the Assistance to be furnished to a friendly country, organization, or body eligible to receive assistance?

N.A.

c. FAA Sec. 609. If commodities are to be granted so that sale proceeds will accrue to the recipient country, have Special Account (counterpart) arrangements been made?

N.A.

6C(2) - PROJECT CHECKLIST

Listed below are, first, statutory criteria applicable generally to projects with FAA funds, and then project criteria applicable to individual fund sources: Development Assistance (with a sub-category for criteria applicable only to loans); and Security Supporting Assistance funds.

CROSS REFERENCES: IS COUNTRY CHECKLIST UP TO DATE? IDENTIFY, HAS STANDARD ITEM CHECKLIST BEEN REVIEWED FOR THIS PROJECT?

GENERAL CRITERIA FOR PROJECT.

- | | |
|--|---|
| <p>1. <u>App. Unnumbered; FAA Sec. 653(b)</u></p> <p>(a) Describe how Committees on Appropriations of Senate and House have been or will be notified concerning the project;</p> <p>(b) is assistance within (Operational Year Budget) country or international organization allocation reported to Congress (or not more than \$1 million over that figure plus 10%)?</p> | <p>By the established congressional notification procedure.</p> |
| <p>2. <u>FAA Sec. 611(a)(1)</u>. Prior to obligation in excess of \$100,000, will there be (a) engineering, financial, and other plans necessary to carry out the assistance and (b) a reasonably firm estimate of the cost to the U.S. of the assistance?</p> | <p>Yes. An engineer has developed a methodology for the modest construction to be carried out under the project. The cost of the project components have been reasonably estimated.</p> |
| <p>3. <u>FAA Sec. 611(a)(2)</u>. If further legislative action is required within recipient country, what is basis for reasonable expectation that such action will be completed in time to permit orderly accomplishment of purpose of the assistance?</p> | <p>N.A. none required</p> |
| <p>4. <u>FAA Sec. 611(b); App. Sec. 101</u>. If for water or water-related land resource construction, has project met the standards and criteria as per Memorandum of the President dated Sept. 5, 1973 (replaces Memorandum of May 15, 1962; see Fed. Register, Vol 38, No. 174, Part III, Sept. 10, 1973)?</p> | <p>N.A.</p> |
| <p>5. <u>FAA Sec. 611(e)</u>. If project is capital assistance (e.g., construction), and all U.S. assistance for it will exceed \$1 million, has Mission Director certified the country's capability effectively to maintain and utilize the project?</p> | <p>Yes.</p> |

A.

6. FAA Sec. 209, 619. Is project susceptible of execution as part of regional or multi-lateral project? If so why is project not so executed? Information and conclusion whether assistance will encourage regional development programs. If assistance is for newly independent country, is it furnished through multi-lateral organizations or plans to the maximum extent appropriate? No.

7. FAA Sec. 601(a); (and Sec. 201(f) for development loans). Information and conclusions whether project will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition; (c) encourage development and use of cooperatives, credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture and commerce; and (f) strengthen free labor unions.

The project is expected to result in exportable food surpluses which may stimulate international trade. Also, the project is expected to improve the technical efficiency of agriculture.

8. FAA Sec. 601(b). Information and conclusion on how project will encourage U.S. private trade and investment abroad and encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise).

U.S. equipment will be purchased under the project.

9. FAA Sec. 612(b); Sec. 636(h). Describe steps taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services, and foreign currencies owned by the U.S. are utilized to meet the cost of contractual and other services.

The Government of Guinea-Bissau will provide logistic support to U.S. technicians. It will also provide local labor and other project's local costs.

10. FAA Sec. 612(d). Does the U.S. own excess foreign currency and, if so, what arrangements have been made for its release?

No.

B. FUNDING CRITERIA FOR PROJECT

1. Development Assistance Project Criteria

- a. FAA Sec. 102(c); Sec. 111; Sec. 281a. Extent to which activity will (a) effectively involve the poor in development, by extending access to economy at local level, increasing labor-intensive production, spreading investment out from cities to small towns and rural areas; and (b) help develop cooperatives, especially by technical assistance, to assist rural and urban poor to help themselves toward better life, and otherwise encourage democratic private and local governmental institutions?

The project will be implemented priority in rural areas and will expand the availability of agricultural land for farming by poor rural dwellers.

B1

b. FAA Sec. 103, 103A, 104, 105, 106, 107. Is assistance being made available: [include only applicable paragraph -- e.g., a, b, etc. -- which corresponds to source of funds used. If more than one fund source is used for project, include relevant paragraph for each fund source.]

(1) [103] for agriculture, rural development or nutrition; if so, extent to which activity is specifically designed to increase productivity and income of rural poor; [103A] if for agricultural research, is full account taken of needs of small farmers;

The project includes a land reclamation component which will expand the land available for cultivation by small farmers. It also includes a seed and plant pathology component through which food seeds will be distributed to small farmers.

(2) [104] for population planning or health; if so, extent to which activity extends low-cost, integrated delivery systems to provide health and family planning services, especially to rural areas and poor;

N.A.

(3) [105] for education, public-administration, or human resources development; if so, extent to which activity strengthens nonformal education, makes formal education more relevant, especially for rural families and urban poor, or strengthens management capability of institutions enabling the poor to participate in development;

N.A.

(4) [106] for technical assistance, energy, research, reconstruction, and selected development problems; if so, extent activity is:

N.A.

(a) technical cooperation and development, especially with U.S. private and voluntary, or regional and international development, organizations;

(b) to help alleviate energy problem;

(c) research into, and evaluation of, economic development processes and techniques;

(d) reconstruction after natural or manmade disaster;

(e) for special development problem, and to enable proper utilization of earlier U.S. infrastructure, etc., assistance;

(f) for programs of urban development, especially small labor-intensive enterprises, marketing systems, and financial or other institutions to help urban poor participate in economic and social development.

B1

(5) [107] by grants for coordinated private effort to develop and disseminate intermediate technologies appropriate for developing countries.

c. FAA Sec. 110(a); Sec. 208(e). Is the recipient country willing to contribute funds to the project, and in what manner has or will it provide assurances that it will provide at least 25% of the costs of the program, project, or activity with respect to which the assistance is to be furnished (or has the latter cost-sharing requirement been waived for a "relatively least-developed" country)?

d. FAA Sec. 110(b). Will grant capital assistance be disbursed for project over more than 3 years? If so, has justification satisfactory to Congress been made, and efforts for other financing?

e. FAA Sec. 207; Sec. 113. Extent to which assistance reflects appropriate emphasis on; (1) encouraging development of democratic, economic, political, and social institutions; (2) self-help in meeting the country's food needs; (3) improving availability of trained worker-power in the country; (4) programs designed to meet the country's health needs; (5) other important areas of economic, political, and social development, including industry; free labor unions, cooperatives, and Voluntary Agencies; transportation and communication; planning and public administration; urban development, and modernization of existing laws; or (6) integrating women into the recipient country's national economy.

f. FAA Sec. 281(b). Describe extent to which program recognizes the particular needs, desires, and capacities of the people of the country; utilizes the country's intellectual resources to encourage institutional development; and supports civic education and training in skills required for effective participation in governmental and political processes essential to self-government.

The government will provide about 35% of the project's total cost. Its contribution includes the value of the land, buildings, logistic support, local labor, and counterpart personnel.

No.

The project will support the GOGB own self-help efforts to increase agricultural production. The project will also provide jobs to the farmers who will carry out the land reclamation activity and is expected to result in significant increases of food production to benefit the whole population of the country.

The project responds to the GOGB own priorities and will be largely implemented by the GOGB.

B1

g. FAA Sec. 201(b)(2)-(4) and -(8); Sec. 201(e); Sec. 211(a)(1)-(3) and -(8). Does the activity give reasonable promise of contributing to the development: of economic resources, or to the increase of productive capacities and self-sustaining economic growth; or of educational or other institutions directed toward social progress? Is it related to and consistent with other development activities, and will it contribute to realizable long-range objectives? And does project paper provide information and conclusion on an activity's economic and technical soundness?

The project will contribute to the expansion of economic resources. Such as farming land, and seeds which will provide basis for self-sufficiency in food.

h. FAA Sec. 201(b)(6); Sec. 211(a)(5), (6). Information and conclusion on possible effects of the assistance on U.S. economy, with special reference to areas of substantial labor surplus, and extent to which U.S. commodities and assistance are furnished in a manner consistent with improving or safeguarding the U.S. balance-of-payments position.

The project will have not detrimental effects on the U.S. economy. Technicians commodities will be largely from the U.S.

2. Development Assistance Project Criteria (Loans only)

N.A.

a. FAA Sec. 201(b)(1). Information and conclusion on availability of financing from other free-world sources, including private sources within U.S.

N.A.

b. FAA Sec. 201(b)(2); 201(d). Information and conclusion on (1) capacity of the country to repay the loan, including reasonableness of repayment prospects, and (2) reasonableness and legality (under laws of country and U.S.) of lending and relending terms of the loan.

N.A.

c. FAA Sec. 201(e). If loan is not made pursuant to a multilateral plan, and the amount of the loan exceeds \$100,000, has country submitted to AID an application for such funds together with assurances to indicate that funds will be used in an economically and technically sound manner?

N.A.

d. FAA Sec. 201(f). Does project paper describe how project will promote the country's economic development taking into account the country's human and material resources requirements and relationship between ultimate objectives of the project and overall economic development?

N.A.

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- e. FAA Sec. 202(a). Total amount of money under loan which is going directly to private enterprise, is going to intermediate credit institutions or other borrowers for use by private enterprise, is being used to finance imports from private sources, or is otherwise being used to finance procurements from private sources? N.A.
- f. FAA Sec. 620(d). If assistance is for any productive enterprise which will compete in the U.S. with U.S. enterprise, is there an agreement by the recipient country to prevent export to the U.S. of more than 20% of the enterprise's annual production during the life of the loan? N.A.
3. Project Criteria Solely for Security Supporting Assistance N.A.
- FAA Sec. 531. How will this assistance support promote economic or political stability?
4. Additional Criteria for Alliance for Progress N.A.
- [Note: Alliance for Progress projects should add the following two items to a project checklist.]
- a. FAA Sec. 251(b)(1), -(8). Does assistance take into account principles of the Act of Bogota and the Charter of Punta del Este; and to what extent will the activity contribute to the economic or political integration of Latin America? N.A.
- b. FAA Sec. 251(b)(8); 251(h). For loans, has there been taken into account the effort made by recipient nation to repatriate capital invested in other countries by their own citizens? Is loan consistent with the findings and recommendations of the Inter-American Committee for the Alliance for Progress (now "CEPCIES," the Permanent Executive Committee of the OAS) in its annual review of national development activities N.A.

6C(3) - STANDARD ITEM CHECKLIST

Listed below are statutory items which normally will be covered routinely in those provisions of an assistance agreement dealing with its implementation, or covered in the agreement by exclusion (as where certain uses of funds are permitted, but other uses not):

These items are arranged under the general headings of (A) Procurement, (B) Construction, and (C) Other Restrictions.

A. Procurement

1. FAA Sec. 602. Are there arrangements to permit U.S. small business to participate equitably in the furnishing of goods and services financed? Yes.

2. FAA Sec. 604(a). Will all commodity procurement financed be from the U.S. except as otherwise determined by the President or under delegation from him? Yes.

3. FAA Sec. 604(d). If the cooperating country discriminates against U.S. marine insurance companies, will agreement require that marine insurance be placed in the U.S. on commodities financed? Yes.

4. FAA Sec. 604(e). If offshore procurement of agricultural commodity or product is to be financed, is there provision against such procurement when the domestic price of such commodity is less than parity? None to be financed.

5. FAA Sec. 608(a). Will U.S. Government excess personal property be utilized wherever practicable in lieu of the procurement of new items? Yes.

6. IMA Sec. 901(b). (a) Compliance with requirement that at least 50 per centum of the gross tonnage of commodities (computed separately for dry bulk carriers, dry cargo liners, and tankers) financed shall be transported on privately owned U.S.-flag commercial vessels to the extent that such vessels are available at fair and reasonable rates. Yes.

7. FAA Sec. 621. If technical assistance is financed, will such assistance be furnished to the fullest extent practicable as goods and professional and other services from private enterprise on a contract basis? If the facilities of other Federal agencies will be utilized, Yes.

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are they particularly suitable, not competitive with private enterprise, and made available without undue interference with domestic programs?

8. International Air Transport. Fair Competitive Practices Act, 1974 Yes.

If air transportation of persons or property is financed on grant basis, will provision be made that U.S.-flag carriers will be utilized to the extent such service is available?

B. Construction

1. FAA Sec. 601(d). If a capital (e.g., construction) project, are engineering and professional services of U.S. firms and their affiliates to be used to the maximum extent consistent with the national interest? Yes.
2. FAA Sec. 611(c). If contracts for construction are to be financed, will they be let on a competitive basis to maximum extent practicable? Yes.
3. FAA Sec. 620(k). If for construction of productive enterprise, will aggregate value of assistance to be furnished by the U.S. not exceed \$100 million? N.A.

C. Other Restrictions

1. FAA Sec. 201(d). If development loan, is interest rate at least 2% per annum during grace period and at least 3% per annum thereafter? N.A.
2. FAA Sec. 301(d). If fund is established solely by U.S. contributions and administered by an international organization, does Comptroller General have audit rights? N.A.
3. FAA Sec. 620(h). Do arrangements preclude promoting or assisting the foreign aid projects or activities of Communist-Bloc countries, contrary to the best interests of the U.S.? Yes.
4. FAA Sec. 636(i). Is financing not permitted to be used, without waiver, for purchase, long-term lease, or exchange of motor vehicle manufactured outside the U.S. or guaranty of such transaction? Yes.

5. Will arrangements preclude use of financing:
- a. FAA Sec. 114. to pay for performance of abortions or to motivate or coerce persons to practice abortions? Yes.
 - b. FAA Sec. 620(g). to compensate owners for expropriated nationalized property? Yes.
 - c. FAA Sec. 660. to finance police training or other law enforcement assistance, except for narcotics programs? Yes.
 - d. FAA Sec. 662. for CIA activities? Yes.
 - e. App. Sec. 103. to pay pensions, etc., for military personnel? Yes.
 - f. App. Sec. 106. to pay U.N. assessments? Yes.
 - g. App. Sec. 107. to carry out provisions of FAA Sections 209(d) and 251(h)? (transfer to multilateral organization for lending). Yes.
 - h. App. Sec. 501. to be used for publicity or propaganda purposes within U.S. not authorized by Congress? Yes.