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UNITED STATES OF AMERICA
AGENCY FOR INTERNATIONAL DEVELOPMENT

Yaounde

UNITED STATES ADDRESS:
YAOUNDE (AID)
DEPARTMENT OF STATE
WASHINGTON, D. C. 20520

INTERNATIONAL ADDRESS
USAID
B. P. 817-
YAOUNDE, CAMEROON
Tel: 23-05-81
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August 24, 1984

Mr. Lawrence E. Williams
Director, Africa Regional Operations
Volunteers in Technical Assistance
1815 North Lynn Street, Suite 200
P.O. Box 12438
Arlington, Virginia 22209-8438

Subject: Cooperative Agreement No. 676-0016-A-00-4046-00

Dear Mr. Williams,

Pursuant to the authority contained in the Foreign Assistance Act of 1961, as amended, the Agency for International Development (hereinafter referred to as "A.I.D.") hereby grants VITA (hereinafter referred to as "Recipient"), the sum of \$1,200,000 to provide technical assistance to the Government of Central African Republic as fully described in Attachment One, "Schedule," and Attachment Two, "Program Description".

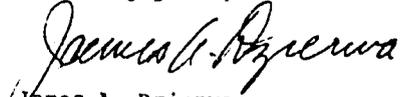
This Cooperative Agreement is effective and obligation is made as of the date of this letter and shall apply to commitments made by the Recipient in furtherance of program objectives during the period beginning with the effective date and ending not later than September 1, 1989.

This Cooperative Agreement is made to VITA on condition that the funds be administered in accordance with the terms and conditions set forth in Attachment 1, entitled "Schedule", Attachment 2, entitled "Program Description," and Attachment 3 entitled "Standard Provisions," which have been agreed to by your organization.

The total estimated amount of the program is \$3,700,000, of which \$1,200,000 is hereby obligated. A.I.D. shall not be liable for reimbursing the Recipient for any costs in excess of the obligated amount. However, subject to the availability of funds, A.I.D. may provide additional funds during the Cooperative Agreement period up to a maximum of an additional \$2,500,000. It is anticipated that the obligated amount will be sufficient through October 31, 1985.

Please sign the original and seven (7) copies of this letter to acknowledge your receipt of the Cooperative Agreement, and return the original and six (6) copies to the Agreement Office listed below.

Sincerely yours,



James A. Dzierwa
Agreement Officer
REDSO/WCA/RCO
Department of State, Abidjan ID
Washington, D.C. 20520

Attachments:

1. Schedule
2. Program Description
3. Standard Provisions, dated 2/82 and Alterations dated 7/82
4. Application from VITA

ACKNOWLEDGED:

Volunteers In-Technical Assistance (VITA)

BY: [Handwritten Signature]

Title: [Handwritten Title]

Date: [Handwritten Date]

FISCAL DATA

Appropriation : 72-1141021.3
Budget Plan Code : GDAA-84-21676-AG13
PIO/T No. : 676-0016-3-40020
Project No. : 676-0016
Total Est Amount : \$3,700,000
Total Oblig Amt : \$1,200,000
IRS EI Number :
LOC-FKB Number :
Funding Source : USAID/Cameroon
Technical Office : Agriculture & Rural Development,
USAID/Cameroon

Attachment 1

SCHEDULE

A. Purpose of Agreement

The purpose of this Cooperative Agreement is to provide technical assistance to the Central African Republic's Post Harvest Food Systems Project, as more specifically described in Attachment 2 of this Agreement entitled "Program Description".

B. Period of Agreement

1. The effective date of this Cooperative Agreement is the date on the Cover Letter. The estimated completion date is September 1, 1989.
2. Funds obligated hereunder are available for estimated program expenditures for the period from August 24, 1984, to October 31, 1985, as shown in the Financial Plan below.

C. Amount of Agreement

1. The total estimated amount of this Cooperative Agreement for the period shown in B.1 above is \$3,700,000.
2. A.I.D. hereby obligates the amount of \$1,200,000 for program expenditures during the period set forth in B.2 above and as shown in the Financial Plan below.
3. Additional funds up to the total amount of this Agreement shown in C.1 above may be obligated by A.I.D. during the Agreement period, subject to the availability of funds, and to the requirements of the Standard Provision of this Agreement entitled "Revision of Financial Plans".
4. Pre-Agreement expenses for RT travel and per diem to Yaounde and Bangui, estimated not to exceed \$3,500, incurred by the recipient during August 1984, and prior to the effective date of the Agreement, are allowable to the extent they are directly related and attributable to achievement of the purpose of this Agreement. Such pre-Agreement expenses are included in the Grand Total of the Financial Plan below, and shall not be construed as increasing either the total estimated amount or the obligated amount of this Agreement as shown in C.1 and C.2 immediately above.

D. Method of Payment

Payment shall be made to the Recipient in accordance with the following provision:

Payment - Letter of Credit (July 1984)

(This provision is applicable only when the following conditions are met: (i) the total advances under all the grantee's cost-reimbursement contracts and assistance instruments with AID exceed \$120,000 per annum, (ii) AID has or expects to have a continuing relationship with the grantee for at least one year; (iii) the grantee has the ability to maintain procedures that will minimize the time elapsing between the transfer of funds and the disbursement thereof; (iv) the grantee's financial management system meets the standards for fund control and accountability required under the standard provision of this grant, entitled "Accounting, Audit, and Records" and either (v) the foreign currency portion of the total advance under this grant is less than 50% or (vi) the foreign currency portion of the total advance under this grant is more than 50% but more than one foreign currency country is involved.)

- (a) Payment under this grant shall be by means of a Letter of Credit (LOC) in accordance with the terms and conditions of the LOC and any instructions issued by AID's Office of Financial Management, Program Accounting Division (M/FM/PAD).
- (b) As long as the LOC is in effect, the terms and conditions of the LOC and any instructions issued by M/FM/PAD constitute payment conditions of this grant, superseding and taking precedence over any other provision of this grant concerning payment.
- (c) Reporting:
 - 1) A "Financial Status Report" SF-269, shall be prepared on an accrual basis and submitted quarterly no later than 30 days after the end of the period, in an original and two copies to AID/M/FM/PAD, Washington, D.C. 20523. If the grantee's accounting records are not normally kept on the accrual basis, the grantee shall not be required to convert its accounting system, but shall develop such accrual information through best estimates based on an analysis of the documentation on hand. The final report must be submitted within 90 days after the conclusion of the grant to M/FM/PAD. In cases where grants are Mission funded, the Grantee will forward an information copy to the USAID controller at the same time the original and one copy are mailed to M/FM/PAD, AID Washington.
 - 2) The grantee shall submit an original and one copy of SF-272, "Federal Cash Transactions Report," within 15 working days following the end of each quarter to M/FM/PAD. Grantees receiving advances totaling more than \$1 million per year shall submit the SF-272 on a monthly basis within 15 working days following the close of the month. Grantees shall report all cash advances in the Remarks section of SF-272. Those cash advances in excess of immediate disbursement requirements in the hands of subrecipients or the grantee's field organizations shall be supported by short narrative explanations of action taken by the grantee to reduce the excess balances.

- (d) Revocation of the LOC is at the discretion of the authorized LOC certifying officer of M/FM/PAD. Notification of revocation must be in writing and must specify the reason for revocation. The recipient may appeal any such revocation to the grant officer.

E. Financial Plan:

1. The following is the Financial Plan for this Cooperative Agreement. Revision to this Plan shall be made in accordance with the Standard Provision of this Cooperative Agreement, entitled "Revision of Financial Plans."

VITA Budget

<u>Line Item</u>	PIO/T 676-0016-3-40020 (est.8/24/84 - 10/31/85)	Est. Additional Amount	
		11/1/85 - 9/1/89	<u>Project Total</u>
1. Personnel	\$274,880	735,020	\$1,009,900
2. Allowances	75,806	185,394	261,200
3. Travel and per diem	32,320	73,950	106,270
4. Equipment and Supplies	303,670	122,230	425,900
5. Other Direct Costs	144,295	417,985	562,280
6. Miscellaneous	36,908	97,802	134,710
7. Overhead	180,547	483,563	664,110
Subtotal	\$1,048,426	\$2,115,864	\$3,164,290

AFRICARE Subcontract

1. Personnel	\$90,127	\$252,103	342,230
2. Allowances and communication	19,411	36,279	55,690
3. Travel and per diem	10,949	16,971	27,920
4. Overhead	31,087	78,783	109,870
Subtotal	\$151,574	\$384,136	\$535,710
Grand Total	\$1,200,000	\$2,500,000	\$3,700,000

2. Budget Adjustments: Budget line items in this Cooperative Agreement may be adjusted up to fifteen (15) per cent between the major categories without prior approval of AID, provided that the total amount of the Cooperative Agreement shall not exceed \$3,700,000. Any adjustment beyond fifteen percent between budget line items must receive prior approval from USAID/Cameroon and the written authorization of the Agreement Officer.

F. Reporting

1. Financial Reporting

- a. Financial reporting requirements shall be in accordance with the provision at paragraph D above.

b. The original and two copies of all financial reports shall be submitted to AID, Office of Financial Management, Programm Accounting Division (FM/PAD), Washington, D.C. 20523. In addition two copies of all financial reports shall be submitted to the Technical Office specified in the Cover Letter of this Agreement. The final "SF-269-Financial Status Report" shall include an attachment that shows expenditures for this Cooperative Agreement by line item.

2. Program Performance Reporting

a. The Recipient shall submit a quarterly program performance report counting from the signature date of this Agreement, and a final report, which briefly present the following information:

(1) A comparison of actual accomplishments with the goals established for the period, the findings of the investigator, or both. If the output of programs or projects can be readily quantified, such quantitative data should be related to cost data for computation of unit costs.

(2) The progress VITA has made during the reporting period in meeting all project outputs, what difficulties were encountered, what actions were taken to resolve these difficulties, and what actions are planned during the next reporting period.

(3) Reasons why established goals were not met.

(4) Other pertinent information including, when appropriate, analysis and explanation of cost overruns or high unit costs.

b. Between the required performance reporting dates, events may occur that have significant impact upon the program. In such instances, the Recipient shall inform AID as soon as the following types of conditions become known:

(1) Problems, delays, or adverse conditions that will materially affect the ability to attain program objectives, prevent the meeting of time schedules and goals, or preclude the attainment of project work units by established time periods. This disclosure shall be accompanied by a statement of the action taken, or contemplated, and any AID assistance needed to resolve the situation.

(2) Favorable developments or events that enable time schedules to be met sooner than anticipated or more work units to be produced than originally projected.

c. If any performance review conducted by the Recipient discloses the need for change in the budget estimates in accordance with the criteria established in the Standard Provision of this Grant entitled "Revision of Financial Plans", the Recipient shall submit a request for budget revision.

d. Summaries of the reports will be translated into French and included with copies of reports sent to the GOCAR High Commission of Plan. Three copies of all reports will be submitted to USAID/Yaounde; one to the American Embassy/Bangui; one copy to FVA/PVC in AID/Washington; and five copies to the High Commission of Plan.

e. Two copies of the final report shall also be submitted to the Office of Development Information and Utilization, Bureau for Program and Policy Coordination, Agency for International Development, Washington D.C. 20523. The title page of all reports forwarded shall include the Cooperative Agreement number and the Project number, as set forth on the second page of the Cooperative Agreement letter, and the Project Title.

G. Indirect Cost Rate

Pursuant to the Standard Provision of this Cooperative Agreement entitled "Negotiated Overhead Rates - Nonprofit Organizations other than Educational Institutions", a rate or rates shall be established for each of the Recipient's accounting periods during the term of this Agreement. Pending establishment of final indirect cost rates for the initial period, provisional payment on account of allowable indirect costs shall be made on the basis of the following negotiated provisional rate applied to the base which is set forth below.

<u>Type</u>	<u>Rate</u>	<u>Base</u>	<u>Period</u>
Overhead	32%	Total Direct Costs exclusive of Subcontracts, Subgrants, furniture, equipment, computer hardware and software, security and renovation costs.	January 1, 1983 until amended

If the overhead rate is later adjusted, the total obligated amount of \$1,200,000 remains in force and no further amounts shall be made available to Recipient unless this Cooperative Agreement is otherwise amended.

H. Title to Property

Title to Commodities: Upon termination of this Cooperative Agreement, title to vehicles and commodities purchased with AID funds shall be retained by VITA for implementation of its on-going program to CAR for as long as VITA shall remain an actively operational private voluntary organization in CAR. In the event that VITA should terminate its presence and active program operations in CAR, or in the event that it should cease using the vehicles and commodities for their intended general purposes, title to them shall be turned over to an appropriate agency of the Government of the Central African Republic.

I. Authorized Geographic Code

The Recipient shall procure goods and services financed by this Agreement in accordance with Standard Provision 10.B of this Agreement entitled, "Procurement of Goods and Services Over \$250,000", as modified by the July 1982 Attachment to AID Forms 1420-51, -52, -53, and -54, entitled "Alterations in Grant".

J. Alterations and Additions to Standard Provisions:

1. The Standard Provisions set forth as Attachment 3 of this Agreement consist of from AID 1420-52, dated 2-82, which includes provisions 1 through 34.

2. The Standard Provisions, as defined above, are modified as set forth in the July 1982 Attachment to AID Forms 1420-51, -52, -53, and -54 entitled "Alterations in Grant", which is attached hereto and made a part of this Agreement.

3. Delete the following Standard Provisions from AID 1420-52, dated as above:

- | | | | |
|----|---------------|---|---|
| a. | Provision 5A | : | Negotiated Overhead Rates - Predetermined |
| b. | Provision 7A | : | Federal Reserve Letter of Credit (FRLC) Advance |
| c. | Provision 7B | : | Payment - Periodic Advances |
| d. | Provision 7C | : | Payment - Reimbursement |
| e. | Provision 10A | : | Procurement of Goods and Services Under \$250,000 |
| f. | Provision 13B | : | Title to and Care of Property (U.S. Government Title) |
| g. | Provision 13C | : | Title to and Care of Property (Cooperating Country Title) |

4. The Standard Provision entitled "Patents", as set forth in form AID 1420-52, dated as above, is superseded by the Standard Provision entitled "Patent Rights (Small Business Firms and Nonprofit Organizations) (March 1982) (OMB Circular A-114)", which is attached hereto and made a part of this Agreement.

5. An additional standard provision entitled "Workmen's Compensation Insurance" is attached hereto and made a part of this Agreement.

6. When the Standard Provisions are used for Cooperative Agreements, the following terms apply:

- "Grantee" means "Recipient"
- "Grant" means "Cooperative Agreement"
- "AID Grant Officer" means "AID Agreement Officer"
- "Subgrant" means "Subcooperative Agreement"
- "Subgrantee" means "Subrecipient"

K. Special Provisions

1. OMB Circular A-122

a. The cost principles of OMB Circular A-122 are synonymous with Subpart 1-15.6 of the Federal Procurement Regulations (FPR).

b. Subpart 1-15.6 reserves the sections on bid and proposal costs and independent research and development costs. AID and the Recipient hereby agree upon the following treatment of these costs, pending such time as the FPR is amended to include them:

(1) Bid and proposal (B&P) costs are the immediate costs of preparing bids, proposals, and applications for potential Federal and non-Federal grants, contracts and agreements, including the development of scientific, cost, and other data needed to support the bids, proposals, and applications. B&P costs of the current accounting period are allowable as indirect costs. B&P costs of prior accounting periods are unallowable in the current period. In this regard, B&P costs incurred for the preparation of requests for specific projects and programs are acceptable for recovery as indirect costs. However, proposal costs incurred in the attempt to obtain unrestricted funds are to be treated as fund raising and must be included in the organization's direct cost base. B&P costs do not include independent research and development costs which are covered by paragraph (2) below, or preaward costs covered by Attachment B, Paragraph 33, of OMB Circular A-122. (FPR 1-15.603.2.).

2) Independent research and development (IR&D) costs are for research and development conducted by an organization which is not sponsored by Federal or non-Federal grants, contracts or other agreements. IR&D costs must be included in the organization's direct cost base for allocation of its proportionate share of indirect costs. The costs of IR&D, including its proportionate share of indirect costs, are unallowable under AID agreements.

2. The AID Liaison Official shall be the USAID Program Coordinator for the Central African Republic, USAID/Yaounde.

3. USAID/Yaounde will attempt to secure pouch and health unit privileges for VITA/AFRICARE personnel.

4. VITA is responsible to the Government of the Central African Republic (GOCAR) for all project implementation taking place within the Central African Republic. VITA shall keep the U.S. Ambassador and USAID/Yaounde informed of project implementation progress.

5. The High Commissioner for Plan and Economic and Financial Cooperation is the GOCAR Liaison Official.

PROGRAM DESCRIPTION

I. THE PROBLEM

The Central African Republic is one of the poorest countries in sub-Saharan Africa, with an average estimated \$300 per capita income that falls to \$200 in rural areas. Family cash incomes may be as low as \$100. Economic development, always difficult to achieve because of the country's distance from seaports and railroads, stagnated during the years of mismanagement under the Bokassa regime and the subsequent world recession. Between 1979 and 1981, the Gross Domestic Product (GDP) fell at an average rate of three percent per year from a positive growth rate during 1977-78 average at 3.5 percent per annum. There has been some improvement in recent years, with a two percent growth in GDP in 1983. The large services component of the GDP has been a major burden on the economy. It is getting larger and larger as migration from rural to urban areas accelerates and exacerbates income disparities between the rural poor and urban dwellers.

The current government, intending to redress this economic imbalance, launched the 1982-85 National Action Program, aimed at moving toward financial equilibrium, improving infrastructure, rehabilitating agriculture, and helping small farmers.

A. Food and Nutrition

Agriculture provides employment to some 80 percent of the population. Nonetheless, the rapid growth in the size of towns (the population of Bangui grew by 34 percent between 1975 and 1981), with a particularly high migration of younger people, means that the rural areas are finding it increasingly difficult to feed themselves as well as the townspeople. According to available information, food crop production declined significantly during the period of 1973-74 and 1977-78. There have been steady but modest increases since then; however, 1982-83 production remained slightly lower than 1973-74 production. With a population growing at an annual rate of 2.5 percent, per capita food availability has declined steadily. Estimates based on production and population figures show that per capita food production decreased from 255 kg in 1973-74 to 204 kg in 1982-83. If this rate of decline continues, the country will have a food problem approaching a crisis by the end of this decade, even in normal years. A crisis will certainly take place in years of drought.

Until recently, development activities in the agricultural sector have concentrated on industrial cash crops and small farmers have received little encouragement to grow more food. All but a few more prosperous ox-plow farmers continue to practice shifting hoe cultivation. Time and energy are two major constraints to increasing production. With the exodus of young men from the countryside, women in particular are increasingly burdened. The many long hours of work in the fields are followed by laborious efforts in

postharvest processing. Infant mortality rates in the project target area are believed to be as high as 200 per 1000. Both in urban and rural areas, the population's nutritional status is substandard and farmers and their children are often reduced to one meal of cassava per day during the busy planting season prior to the next harvest. According to a UNDP/FAO 1977 nutrition survey, total calorie supply was equivalent to between 70 and 79 percent of the total requirement. According to a recent FAO assessment, productivity of farmers is reduced by 50 percent when the daily diet covers only 75 percent of the requirement. Child malnutrition in the Prefecture of Ouham in the project target area has been estimated by the Bossengo Nutrition Center for children up to six years of age, as follows:

adequately nourished children:	40 percent
mildly malnourished children:	35 percent
severely malnourished children:	25 percent

The long hours worked by women make it difficult for them to prepare adequate meals for their children, even if the food should be available.

B. Postharvest Practices

Because of CAR's climate, food grains are grown, harvested, stored, and processed for food under warm, moist conditions. These, coupled with inadequate field and village drying coupled with storage unprotected from rodents and insects, result in a serious potential for losses. The extent of losses is not known and there are extreme variations, but the potential for losses is expected to be as high as 20 percent. All of these factors and the present unpredictable levels of losses in a situation where the farmers and nation have inadequate reserves exacerbate the entire problem.

II. THE PROJECT

A. Background

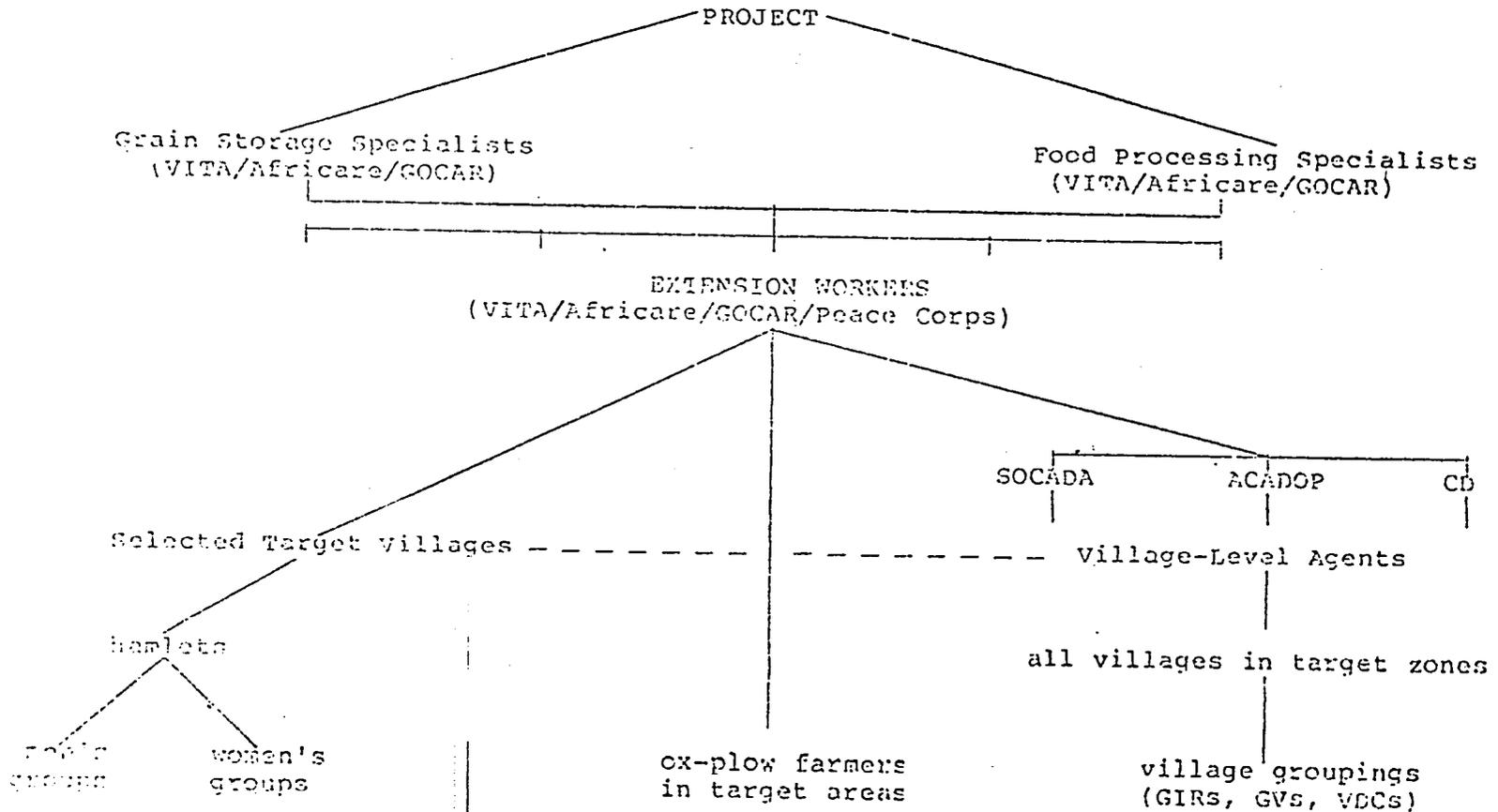
The Project has evolved over a period of several years, starting with an initial FAO grain storage effort in the Paoua target area (1979-81). The FAO project was short in duration (18 months) and had mixed results from a technical point of view. It did, however, have considerable impact in sensitizing the rural population to the issue. Following a preliminary mission by USAID specialists to Ouham and Ouham-Pendé in May-June 1983, the USAID Mission in Yaounde concluded that, in view of the absence of a USAID representative in CAR, the proposed Project should be designed and executed by a PVO with agricultural and developmental experience.

B. Conformity with CAR's Priorities

The PHNS Project is in keeping with the Government's priorities, as specified in the 1983-1985 National Action Program, to help improve the living conditions of the rural poor and to reduce the high degree of regional income disparity.

Figure 1

PROJECT EXTENSION STRATEGY



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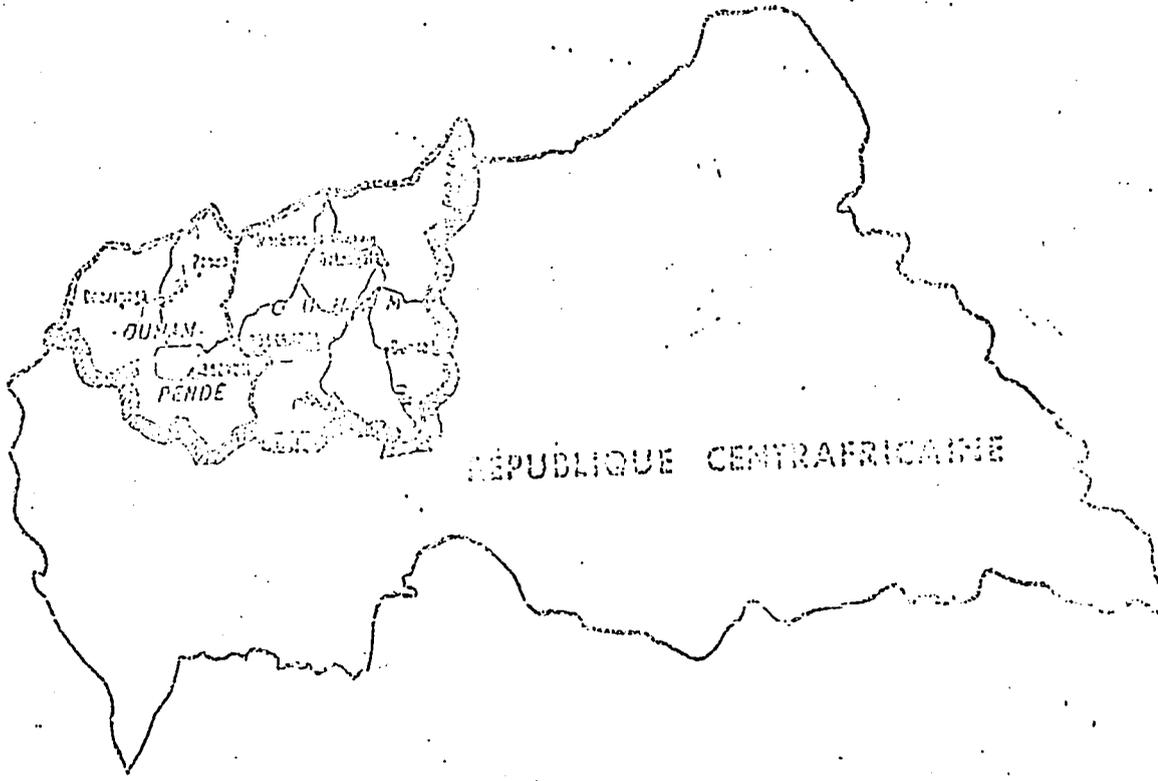


Figure 2
Project Target Area Map

C. Goals, Purposes, and Strategies

The goals of the Project are to increase food availability in the CAR, to raise small farmers' incomes, and to contribute to the improvement in the nutritional status of the population.

The Project's purposes are to extend food storage and reduce postharvest food losses, both quantitatively and qualitatively, as well as to reduce labor in postharvest processing.

The strategy is based on the assumption that improvements in the postharvest system are possible without using levels of technology or materials not available locally. The Project's principle is one of working with farmers. It will place at their disposal a variety of techniques developed as a result of two-way communication between the project and farmers. The range of innovations for storage, drying, processing, etc., will allow individuals or groups to choose those most appropriate to their needs and resources. Through this participatory approach, farmers will have made a major contribution to the identification of improvements. It is expected that this will encourage a spontaneous diffusion of innovation outwards from selected target villages.

Although institution-building is not a component of the Project, GOCAR agencies will be given every opportunity to work closely with the Project. In addition to providing direct training to Ministry of Rural Development officials seconded to the Project, a PHFS training and follow-up program for village level agents will be developed in collaboration with agencies such as SOCADA, ACADOP, and the Community Development Department. This will also allow the project to reach indirectly many farmers in addition to those with whom it will be working directly (see figure 1).

The PHFS Project is divided into three stages:

1. A two-year initial stage devoted to a baseline study, the introduction of some simple technologies, and the orientation of village-level agents.
2. A two-year stage of full activities in all target zones, concentrating on training and extension with continued evaluation of new techniques.
3. A one-year stage to assist the GOCAR in transferring the experience gained from the Project to other areas of the country.

The Project Assistance Completion Date is September 1, 1989.

D. Location

The Project target area comprises the prefectures of Ouham and Ouham-Pendé in the northwest of the country, bordering Cameroon and Chad. This area forms part of the "Cotton Zone" which stretches across the west and central savannah regions of the CAR. It is an extensive rolling plateau, with an average altitude of about 600 meters (figures 2).

The Cotton Zone has an intertropical climate with temperatures ranging between 18°C and 35°C (annual average 27°C). The rainy season is well-defined (April/May to October). Annual rainfall ranges from 1,300 mm to the north to 1,700 mm in the south.

The people of Ouham and Ouham-Pendé practice shifting agriculture with some hunting, fishing, and gathering. In pre-colonial times they lived in small extended family units scattered throughout the bush and lived close to the fields they were farming. Today, most live in roadside villages with population sizes of between 200-500 people. The larger villages are in fact collections of contiguous hamlets largely independent of one another. Each village has a government-recognized headman. However, most often the most influential persons in the village are the most prosperous and dynamic farmers.

Cotton is the main cash crop of the area, grown by most farmers as the first crop in a three to four year cycle of cultivation. In the second year, associated food crops are grown: sorghum/groundnuts/cassava/maize/beans, and in the third year (and sometimes a fourth) cassava continues to be harvested. More sorghum is grown in the northern part of the Project area, with maize becoming a more important crop further south, along with cassava. For the two prefectures, estimated annual production of the main food crop is 34,000 tons of sorghum, 94,000 tons of cassava, 50,000 tons of groundnuts, and 11,000 of tons of maize.

Main sources of cash income for small farmers other than cotton are the sale of food produce, game, fish, honey, bees wax, wild plants, vegetables, and beer brewed from honey and sorghum. Men and women sell and buy as individuals not as a couple, but men take parts of the wives' proceeds. No statistical information is available about the relative importance of men's and women's incomes.

E. Beneficiaries

The population of the two prefectures is estimated at about half a million in 1984, or about 20 percent of the total population of the CAR. The Project will be working in five discrete target zones within this area, selected on the basis of known variations in environment, agricultural activity, postharvest practices, and cultural and linguistic groupings. The zones are, in fact, defined by strips of all-weather roads along which the villages lie. The zones have been identified in relation to SOCADA's own plan of action which involves dividing each of its administrative sectors into "intensive" or "extensive" zones of action. SOCADA is placing a greater number of field agents in the "intensive" zones and is, among other actions, placing greater stress of food production. The Project Zones One to Four (see map) are identical to three intensive zones of SOCADA, with SOCADA's Paoua zone divided into two project zones because of cultural and agricultural differences between the areas north and south of Paoua town. The Project's fifth zone, the road from Nana Bakassa to Leré (the "boucle"), is only a part of SOCADA's larger intensive zone of action in the sector of 'Bossangoa Nord.'

A specific profile of each zone will be developed during the course of the baseline study.

The numbers of people living in the zones can be calculated only approximately as only information about the numbers of cotton planters is available. It is not clear whether this information includes all or most adult men and women, or simply "household heads." Taking this into account, estimates of the total population for the five zones range from 82,000 to 165,000.

POPULATION IN FIVE TARGET ZONES OF CAR

<u>Name of Sector In Which Intensive Zone is Located</u>	<u>Total Population Size (estimated)</u>	
(1) Bocaranga	24000	48000
(2) & (3) Paoua	21000	42000
(4) Bossangoa South	27000	54000
(5) Bossangoa North	<u>10500</u>	<u>21000</u>
Total	82500	165000

The Project will work directly with farmers in five villages in each zone, i.e. a total of 25 villages or about 12,000 people (including children). In addition, it will work with ox-plow farmers in the zones where ACADOP is active (about 1,400 men). Finally, the Project will reach a greater number of farmers indirectly through training and follow-up support to village level agents in the target zones, as well as through spontaneous diffusion from farmer to farmer.

F. Project Management

1. Administrative Framework. Within the GOCAR administration, overall supervisory responsibility for the Project will rest with the High Commission for Plan and Economic and Financial Cooperation. VITA/Africare with USAID and Peace Corps will be the other members of a tripartite supervisory committee (figure 3). The Ministry of Rural Development will be the responsible technical ministry and it will appoint Central African specialists to be attached to the project. The project will be working primarily with institutions directly under the Ministry, ACADOP and SOCADA. ACADOP is responsible for an animal traction program and assorted community development activities in Ouham-Pendé, while SOCADA is a parastatal company with the mandate, throughout the Cotton Zone, to provide agricultural extension services for both cotton and food crops. Other GOCAR institutions not attached to the Ministry of Rural Development, such as the Community Development Departments, may also wish to benefit from the Project's activities. The tripartite committee will ensure proper coordination among these GOCAR institutions, project personnel, and the High Commission for Plan.

In the initial stage of Project activity it is expected that the main GOCAR cooperating agency will be ACADOP, based at Paoua in Ouham-Pendé. In the following stage extension activities also will be carried out in Ouham in cooperation with SOCADA.

2. Role of Africare. VITA, as the grantee, will assume overall managerial responsibility for the project and will handle all logistical, procurement and home office support operations. As subcontractor, Africare will contribute two team members--the food processing specialist and one extension specialist--who will work under the supervision of the VITA Project Director and be fully integrated into the team. Africare will participate further by planning project activities, monitoring project progress, participating in evaluations, and providing counsel from its own long experience in agricultural and rural development projects.

3. Resource Team. VITA will draw upon the expertise of institutions specializing in postharvest food conservation such as the Food and Feed Grain Institute of Kansas State University, the vertebrate pest management section of the Denver Wildlife Research Center, the Postharvest Institute for Perishables of the University of Idaho, the Tropical Development and Research Institute of London (formerly the Tropical Products Institute), the Non-Formal Education Center of Michigan State University, and the Farming Systems Support Project of the University of Florida. Team members will lend their expertise as needed--for technology development, orientation of field staff, and supply of short-term consultants. Both the Kansas and Idaho Institutions, for example, train students from Africa, and the Wildlife Research Center has long experience with vertebrate pest management in Africa. Expertise from Michigan State University will be useful in developing non-formal training techniques in cooperation with local trainers. Other team members will participate as appropriate.

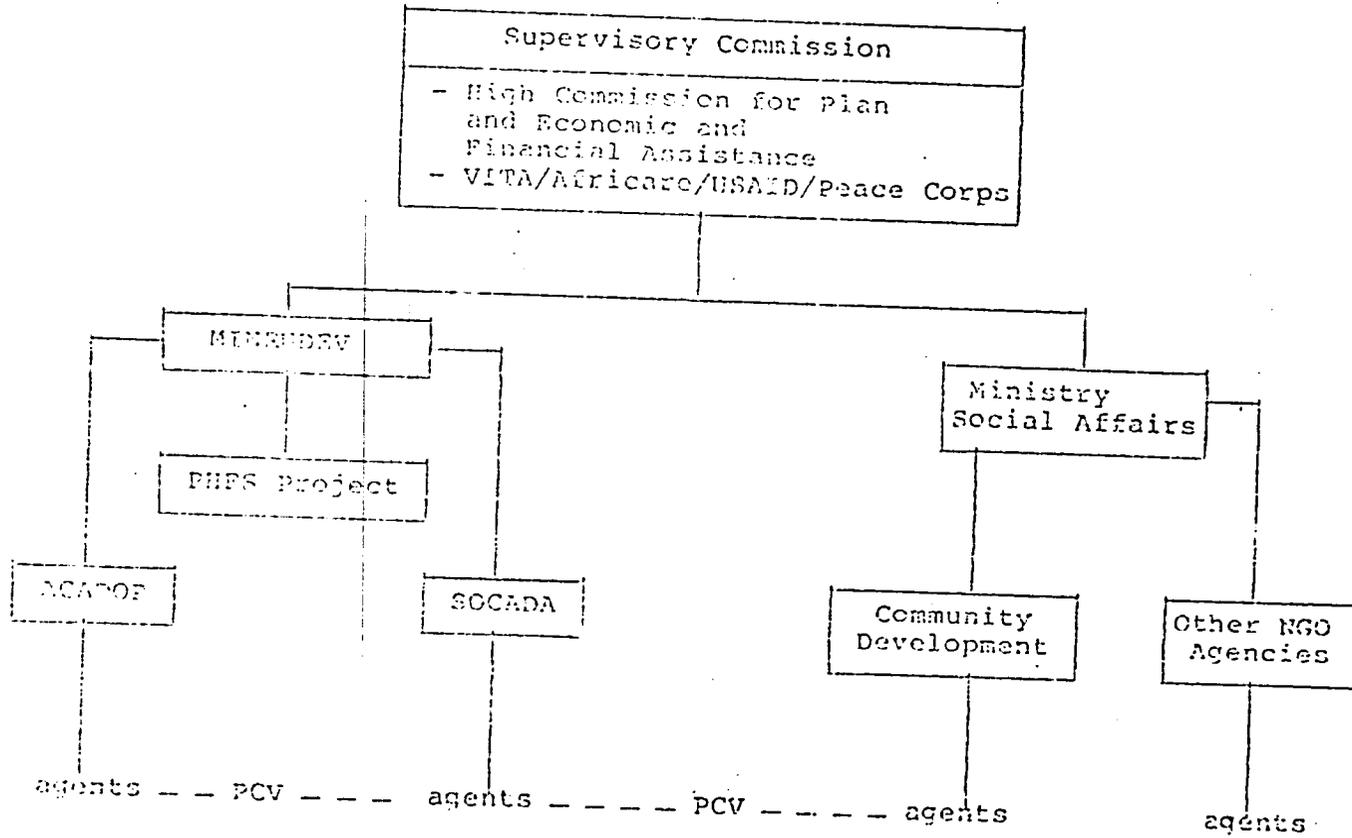
G. Outputs

The major results the PHFS Project expects to achieve are listed below:

1. Detailed information on the extent of, nature of, and losses prevalent to the postharvest food systems in the project target areas. The baseline study, building on the information acquired in the earlier FAO project, will provide the project with data on the average level of postharvest losses by crop type, the efficiency of current storage measures, the material and labor inputs they require, preliminary quantitative results of the effectiveness and cultural acceptance of new storage facilities/methods, and the expected costs in material and labor inputs for the new protective measures. Other information the baseline study will generate will include estimates of the percentages of food by crop type which is marketed and estimates of the prevailing prices at the first point of sale.

Figure 3

ORGANIZATION CHART - PHPS PROJECT



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The study is essential given the Project's emphasis on technical innovation in an unknown environment. Its wide scope of information will reduce the possibility of ineffective or even detrimental activities. The combination of on-farm testing, loss assessment, and other information will result in a complete storage and postharvest management system for project participants and other farmers in the Caltar zone of the CAR. From its findings quantitative and qualitative indicators will be determined and used for measuring subsequent progress of the Project.

2. Improved Village Technology: These will be selected from as many as are feasible of the following; rodent control by rat guards, sanitation, improved drying techniques and drying areas; improved mechanical cleaning and grinding of grain; techniques to improve cassava processing; presses for cottonseed or groundnut oil; bird control during field drying; and insect control by improved drying, sanitation, cleaning, and storage. Here again, the FAO experiences will be useful. A target of 25 villages should have adapted these technologies by the Project's end. An indication of successful diffusion will be the appearance of project-introduced techniques in villages other than the primary targets.

3. Sustainable Training and Extension Programs: Training and extension activities that are replicable in other parts of the country will be developed by the Project. The training and extension strategy will have two main components: (1) methods developed and implemented for direct communication with farmers, both as individuals and in groups, and (2) methods for reaching farmers through the provision of training and follow-up support to extension agents.

Concerning direct communication with farmers, emphasis will be on the active involvement of farmers at all stages of activities, from loss assessment studies through to on-farm testing and evaluation. Appropriate audio-visual and educational methods will be developed and tested. Most of the target farmers are not only illiterate, they are unfamiliar with posters, pictures, or other images. Communication is traditionally almost entirely through the spoken word and actual demonstration. Priority will be given to this technique through such methods as instructive drama.

Village and hamlet-level workshops will be organized both for married couples as well as for men and women farmers separately.

As for the training of extension agents, the Project will use an approach which does not conflict strongly with the way the agents are trained by their parent agencies. Short, subject-specific workshops will be held, on a zone by zone basis, two or three times each year, and in collaboration with the agencies' own staff training services. After each workshop, follow-up visits will be made to ensure that the techniques and improvements being introduced are correctly demonstrated in the villages. Training workshops will be supported with video-tapes, slides, etc., and agents will be provided with manuals and posters to help them in the villages. Based on figures

available for the number of village-level agents working in the five target zones, the total number of extension agents to be trained and supported by the Project will not be more than about 80. Most of this number will participate in introductory orientation workshops but half or more will probably drop out at this stage. A reasonable target for well-trained and participating agents will be between 20-30.

4. A Monitoring and Evaluation System: It is vital to a grassroots appropriate technology project not only to know the baseline situation but from there on to be aware of the quantity and quality of changes that are occurring. The basic technical tool for measuring changes in food loss levels will be the method developed initially for the loss assessment study. Simple indicators also will be developed for measuring the rate of diffusion of the improved techniques both within the target villages and in other pre-identified "control" villages. Guidelines will be developed for observing qualitative, non-measurable changes in the target villages as a result of project activities. The reaction of the farmers will be carefully followed, but at the same time, they and the village agents will be encouraged and assisted to become part of the monitoring and evaluation system. For example, certain monitoring activities can be given to farmers' groups or village development committees. The participation of all will be designed into the system. The data collected on a routine basis throughout the project lifetime will serve as a basis not only for continuous evaluation and probable modifications of project strategies, but also for an end-of-project evaluation.

5. Official and Public Awareness of Postharvest Problems: The interest and support of the various rural development agencies will be major contributing factors to effective project implementation and to the chances of PHPS activities continuing through institutionalized channels after the end of the project. In addition to ensuring a general understanding of the problems involved and the Project's activities in the postharvest sector, special emphasis will be placed on providing information to the local authorities and to the supervisors of the village-level agents with whom shops will be organized and exploratory brochures and videotapes produced and regularly updated.

6. A Technical Report: VITA will prepare and publish a technical report at the end of the project. It will be made available to people around the world who are concerned with postharvest food systems.

7. A Program for Transferring PHPS Actions to other Parts of the CAR: This will be the major output of the Project's third stage and will be developed from the studies and investigations made by project-trained GOCAR personnel working in another selected region. This output might include a project document for submission to other donors.

H. Inputs

1. GOCAR

- a. **Personnel:** Four specialists from the Ministry of Rural Development will be assigned to work as full-time members of the project team. Detailed job descriptions will be developed, but the main areas of activity for each one will be as follows:
- Grain storage and handling specialist, based in Paoua and concerned with the identification and testing of improved storage techniques at the farmer level.
 - Food processing specialist, based in Paoua and concerned with the identification and testing of improved postharvest processing techniques. Ideally this post would be filled by a woman with agricultural qualifications and some community development experience.
 - An extension specialist, based either in Paoua or Bocaranga, concerned with training village agents and villagers in improved postharvest techniques in the Prefecture of Ouham-Pendé.
 - An extension specialist based either in Nana Bakasssa or Bossangoa, concerned with the training of village agents and villagers in the Prefecture of Ouham.
- Administrative personnel and support services will be provided by ACADOP, including the full-time secondment of an administrative officer plus typing and clerical assistance as needed.
- b. **Land:** Land will be provided for building additional housing and office space at Paoua; included are water, sewage, and electrical hook-ups.
- c. **Buildings:** A house for the use of project staff, as well as warehouse space, will be made available on the ACADOP compound at Paoua.
- d. **Equipment:** Laboratory equipment at Paoua donated to ACADOP by the FAO postharvest losses project will be made available.
- e. **Other Services:** In addition, the GOCAR will provide such other services as:
- Utilization of the ACADOP radio network Bangui/Paoua/Bocaranga and the SOCEDA radio links Bangui/Bossangoa/Nana Bakasssa/Pendé.
 - Utilization of the audio-visual services of the Community Development Department, the Project paying only the cost of materials and artists' time.

- Duty-free importation of all Project vehicles, equipment, and materials throughout the project lifetime, as well as importation of expatriate staff personal effects, consumables, medicines, etc.

Contribution of GOCAR estimated in US Dollars, in thousands
(total of five-year period)

Personnel	80.0
Land and utilities correction	24.0
Buildings	40.0
Equipment	1.0
Radio network	4.5
Audio-visual services	<u>10.0</u>
TOTAL	159.5

2. Peace Corps

- a. **Volunteers:** Peace Corps will provide three volunteers with qualifications either in agriculture or the social sciences. Two will be based in Paoua and one in Bossangoa. Each volunteer will contribute to the following activities:
- * Postharvest loss assessment study
 - * On-farm testing and demonstration of improved techniques
 - * Workshops for village-level agents and for farmers' groups.
- b. **Training:** A four-week technical training course will be conducted at Peace Corps expense for the volunteers at Kansas State University on specific topics, such as insect and rodent control, grain storage, postharvest processing.

3. VITA/Africare (Substantially AID Funding)

a. Personnel

i. Long-term professional

- Project Director (51 months): This person will be based in Bangui for the full term. The Project Director will be responsible for planning and scheduling project activities, supervising project personnel, and maintaining liaison with GOCAR and USAID officials. He will also develop and run administrative and logistic support systems, maintain project accounts, appoint and train local staff, and manage project equipment and materials.

- Storage and Handling Specialist (51 months): This person will be appointed for stages I and II of the project and will also serve three months of the third transfer stage returning for the final three months of that stage. He will be based in Paoua and will be responsible for overall management and direction of project activities; he will also contribute his specialist skills in the identification and introduction of appropriate improved PHFS technologies at the village level. He will be responsible for the execution of the village environmental component of the baseline study and for the design and overall supervision of the loss assessments study.
- Food Processing Specialist (48 months): This person will be appointed for stages I and II of the project and based at Paoua. The specialist will be concerned with identifying and introducing improved methods of postharvest processing linked to better food conservation and nutrition. Because postharvest processing is the task of women, it is preferable that a woman specialist be appointed to the post. This specialist will also collaborate in undertaking the village environmental study.
- Extension Specialists (two for 48 months each): These two persons will arrive in CAR by May 1985. However, funds are allowed for these posts from the start of the Project in the event that highly suitable candidates will no longer be available at the later date. They will be based in zones one and five of the project target area, each living in a selected village. Initially responsible for conducting the loss assessments study in their respective target zones, they will be primarily in charge of developing and implementing appropriate training and extension strategies throughout the target area, supervising in the work of the Peace Corps volunteers working in the other zones.

ii. Short-Term Consultants

- The number of short-term consultants will be limited. The Project will seek to identify suitable qualified local consultants. However, expatriate consultant services will be specifically required for (a) a review of the baseline study prior to the start of the loss assessment component; (b) and evaluation of the project's first stage; (c) and evaluation of the Project's second stage; and (d) design of a monitoring and evaluation system to support GOCAR in the transfer of improved PHFS systems to another region.

iii. Local Staff

- Two logistics officers will be based in Bangui and Paoua, two clerk/typists in Paoua and one in Bangui. Drivers, messengers, and watchmen will be appointed as appropriate in the various project sites.

b. Allowances

Rent and Utilities: The project provides for the rental of a house in Bangui to serve as a home/office for the country representative. At Paoua and the other project sites, personnel will be living in GOCAR-provided lodging or in specially constructed or renovated housing.

c. Travel and Per diem

i. Journey of GOCAR representative to Washington:

This travel will take place towards the end of the project's third stage and will allow GOCAR representatives to discuss with VITA/Africare the final preparation of the strategy for the transfer of PHFS technologies to other parts of the country.

ii. Travel of Project Director:

Funds will be available for a review meeting with VITA and Africare each year and for two trips per year to USAID/Yaounde during the project's lifetime.

d. Project Equipment and Supplies

i. Construction: In addition to the GOCAR house, warehouse space, and laboratory being made available on the ACADOP compound at Paoua, the project will need a second (duplex) house, a small guest quarters, and office space. These buildings will conform in cost and quality with those already built at ACADOP with German financing. Suitable alternative accommodation in Paoua town is not available, although it is expected that Peace Corps will continue to rent a small house in the town. PC funds are available for modest improvements, if required, for this PC house as well as the house to be rented by the third PCV in Bossangoa. Other construction costs total \$10,000 for two simple houses for the extension specialists. Built of local materials, each house will be similar to the other houses in the village but with improved security, fenced yard, a pit latrine, shower, kitchen, and screens on windows and doors.

ii. Technical Equipment: expenditure will be fairly low as the Project intends to use only appropriate equipment for demonstration and teaching purposes. No farmers or villages will receive gifts of equipment but will be taught to make their own on the basis of project prototypes.

iii. Camping Equipment: is required for the village environment component of the baseline study.

- iv. Audio-visual Equipment: will include a video teaching unit, a 35 mm camera, two Polaroid cameras and cassette recorders. Funds are designated for any necessary replacements in the third year.
- v. Household Furniture: will be made by local artisans. Electric and kerosene refrigerators and cooking stoves, however, will be imported duty free.
- vi. Vehicles: The heavy expenditure for vehicles is required by the fact that the Project team will be working in five separate target zones. Motorbikes are not recommended, even for the PCVs, because of the hazardous road conditions and the frequent need to carry training materials and equipment. A small 4WD covered vehicle, such as a Suzuki, will be made available to the extension specialists working in the project. Larger 4WD station wagons, such as those made by Nissan, will be used primarily by the three senior expatriate members of the team and also for visiting consultants. The allocation of one vehicle per project team member means that all staff, expatriate and Central African, can achieve optimum performance in reaching farmers and villages at frequent intervals. The vehicles will be replaced after three years, ensuring that the GOCAR members of the project team will be able to continue PHFS activities into the third transfer stage.
- vii. Communications-Radios: The Project will use the radio links between Bocaranga, Pacua, and Bangui already established by ACADOP. However, short wave transmitters/receivers will be supplied to the team members working in the three outlying zones--one, four, and five.

e. Other Direct Costs

- i. Training and Teaching Materials will be developed and reproduced inside the country, with assistance as needed from VITA's editorial staff. In the preparation of manuals, posters, flip charts, etc., the Project will work with the services of the audio-visual section of the ~~Community Development Department~~.
- ii. Technical Supplies and Grain Purchases: Grain purchases will be made in connection with on-farm trials and demonstrations.
- iii. Interpretation Services will be particularly needed at the start of the project and will involve the temporary hiring of local people who can translate from a local language, such as Gbeya or Talé, into French. All project team personnel will be expected to speak fluent French and Sango and the extension specialists should subsequently become competent in the language of the zone in which they are working.

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- iv. Logistical Support to GOCAR Staff is a necessary budget component to ensure that the Central African specialists can travel on project business within the target area. Per diem rates will be calculated in accordance with those of Central African specialists working directly for ACADOP.
- v. Vehicle Operation and Maintenance Costs have been calculated on the basis of figures provided by ACADOP. The project will continue to fund operating costs during the final, transfer stage.
- vi. Training Costs for PCVs at Kansas State University (Only if unavailable from Peace Corps' own resources).
- vii. Third-country Training each year of two Central African specialists or village extension agent supervisors at the Regional Crop Storage and Plant Protection Training Center in Yaoundé.

f. Volunteer Participation

VITA will contribute VITA Volunteer time to the Project for planning, advising, technical assistance, information, and evaluating certain aspects of the Project. It also will provide technical materials that are available at VITA headquarters.

4. Overall Project Financial Resources

AID Cooperative Agreement	\$3,700,000
VITA Contribution	189,100
AFRICARE Contribution	31,600
GOCAR Contribution	<u>159,500</u>
Project Grand Total	\$4,080,200

III. RESPONSIBILITIES OF ORGANIZATIONS INVOLVED

A. VITA/AFRICARE

VITA, with its subcontractor Africare, has the primary responsibility of achieving the project's goal and purpose. VITA/Africare will have complete responsibility for the implementation of the project to include project logistics, fielding and supporting its personnel, and concluding its arrangements and agreements with the GOCAR. VITA/Africare will provide representatives for the evaluation of stage 1 and for the final project evaluation.

Within 90 days of the execution of the Cooperative Agreement between USAID and VITA, VITA will provide USAID a copy of its agreement entered into with the GOCAR for implementation of this project.

B. USAID/CAMEROON SUBSTANTIAL INVOLVEMENT UNDERSTANDING

AID/Cameroon's primary responsibility will be to monitor the progress of project activities and to consult with VITA/AFRICARE when it is apparent that a change in emphasis or direction is needed in project implementation. USAID will be responsible for participating in formal project evaluations during the second and fifth years of the project as well as informal project reviews to be conducted at one or more times during each year of project implementation (See Section V below).

C. AMERICAN EMBASSY/CENTRAL AFRICAN REPUBLIC

Although there is no permanent USAID representative in CAR, the American Ambassador has appointed one of his State Department staff as ad hoc AID Affairs Officer. This person will share the responsibility of monitoring the progress of project activities with the USAID/Yaounde Project Officer. This person also will provide a means of liaison between USAID/Yaounde and the project field team for official telegrams and correspondence. In addition, this person is invited to participate in all project evaluations. The American Ambassador takes special interest in the implementation and progress of the USAID program in CAR and as such should be kept well informed of project activities both by VITA/Africare and USAID.

D. GOCAR (to be included in the VITA/GOCAR Agreement)

The High Commission for Plan and Economic and Financial Cooperation should be the responsible agency of the Government of the Central African Republic. The principal implementing agencies should be the Ministry of Rural Development and the Central African Agency for the Development of Ouham-Pendé (ACADOP). Other agencies which should be involved in project training and extension include the Central African Society for Agricultural Development (SOCADA, a cotton production parastatal) and the Community Development Organization. The High Commission of Plan will be responsible to ensure that the inputs listed in section II. H. 1. are made available in a timely fashion. It should facilitate the duty-free entry of vehicles, furniture, appliances, and equipment called for the project as well as the resident advisors' personal effects, and should obtain agreement from the GOCAR that personnel entering the Central African Republic under the project shall be entitled to the privileges and immunities normally accorded to diplomatic representatives accredited to the Central African Republic, including freedom from subjection to civil or criminal jurisdiction of the courts of the Central African Republic or by any of its political subdivisions, and freedom from obligation from military service. The GOCAR also should participate in all evaluations conducted of the project.

E. PEACE CORPS

The Peace Corps will be requested to provide three volunteers and they will extend the normal support to these volunteers that it provides to other Peace Corps volunteers working in the Central African Republic. As part of volunteer training, the Peace Corps will be asked to organize and fund a four-week technical training course at Kansas State University on specific topics such as insect and rodent control, grain storage, and post-harvest processing.

IV. PROJECTED ACTIVITIES AND PLAN OF WORK IN FIRST STAGE

A The two-year first stage will be limited in geographical area and will emphasize assessment of food losses and evaluation of the social setting in which they occur. The reason for this cautious approach is to avoid immediate administrative problems and to obtain a realistic view of food losses in the area. At this point, the extent of these losses is unknown.

Assessment will take place in the five zones noted in Ouham and Ouham-Pendé. Specific technical interventions will be concentrated in the Paoua area during this stage.

Paoua has been chosen as the initial intervention point for the following reasons:

1. ACADOP, which is based in Paoua, is a logical Central African counterpart; its staff is in place and a number of village groups are already functioning. ACADOP investments in logistical support will reduce start up time and increase the amount of money available for technical activities.
2. The FAO project that operated in the area between 1979-81 appears to have made local farmers sensitive to the issue of grain losses. The design team was impressed with farmers' efforts to keep grain clean on their own and is convinced that they will be receptive to additional measures to reduce losses. Material left over from the FAO project will be available from ACADOP.

B. Major project activities during the first stage are listed below, followed by a bar-graph presentation (figure 4) of the plan of work. This plan of work will be revised as necessary by the project director within three months of his arrival in the CAR.

1. Developing Administrative and Logistical Support: This will be the task of the Project Director stationed in Bangui.
2. Coordinating Project and Other Agency Activities:
 - GOCAR institutions in Bangui, particularly the Ministry of Rural Development, the High Commission of Plan, SOCADA, and the Community Development Department: The project will assist the Ministry of rural development in designating and orienting the Central African cadres to be attached to the project. As discussed in the Inputs Section, the Ministry of Rural Development will designate five Central African experts to work as members of the project team. After a period of orientation, the team will develop specific job descriptions for each one.
 - GOCAR officials and institutions in the target area: VITA/AFRICARE will ensure that local authorities and rural development agencies are kept fully informed as to the reasons for the project's presence.

PLAN OF WORK

	1984				1985												1986								
	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	
PERSONNEL ACTIONS																									
Project Director																									
Arrives Bangui																									
Admin. Officer Arrives Bangui																									
Processing Specialist																									
Arrives Bangui																									
Leave Bangui																									
Project Loan to Ppoua																									
Extension Specialist																									
Training U.S.																									
PCVs Training/U.S.																									
PCVs Training/Bangui																									
PCVs Operational																									
Extension Specialists																									
Language Training																									
Extension Specialists																									
Operational																									
Technical Consultancy/																									
Training																									
ADMINISTRATIVE ACTIONS																									
Contract Procurement																									
Contractor Bangui																									
Construction ACCDP																									
Equipment																									
Construction Ext. Spec.																									
Draw																									
TECHNICAL ACTIONS																									
Develop Work Plan/CCAR																									
Area Present. On Site																									
Selection																									

AR-20

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	1984				1985					1986															
	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	
TECHNICAL ACTIONS CONT'D.																									
Workshop/Key Officials/ Village Agents																									
Village Study																									
Loss Assessment Study																									
Workshop/Village Agents																									
Plan of Actions/ Stage II																									
REPORTS/EVALUATIONS																									
Progress Report to VITA																									
Review at VITA/U.S.																									
Progress Report																									
Evaluation Mission																									

Best Available Document

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- Other development projects working in similar fields both in the target area and elsewhere in the country: Of particular interest are other grass roots projects such as the activities of the CREFS in the central part of the country, various programs of the Community Development Department and the IFAD-funded Ombello-Mpoko Project to the south of Ouham.
 - Research and training institutes including the University Agricultural Faculty at Mbaïki, the Soumbé research station near Bossangoa and the crop protection regional training centre (CREPPHY) in Yaounde.
3. Conducting the Baseline Study and Evaluating Its Results: Initial village orientation meetings will be organized with the help of local field agents from ACADOP, SOCADA or other agencies; questions and discussion will be encouraged. If necessary, additional follow-up meetings may be organized separately with the village women who might be too shy or pressured to speak or ask questions when men are present. Throughout the study period the investigators will continually check that the farmers are understanding the purpose of the research and investigators will be prepared to explain the project and its goals to anyone who asks. On completion of the study, the project team will report its principal findings to the participating villages and invite discussion and comments. This reporting process will help farmers think more carefully about how they themselves can bring about improvements in their postharvest system.

The study will consist of four main components as follow:

- A village level study to learn about the interaction between environment, production, technology, and social organization and to pinpoint positive and negative factors with regard to the successful introduction of innovations. (March to June 1985)
- A postharvest loss assessment study to identify the kinds, causes, and quantities of losses occurring and to ascertain the main points of difficulty in the existing postharvest system for each of the five zones. (July 1985 to May 1986)
- A marketing study, incorporating some data from the previous two studies but also collecting additional information from other sources about farmers' participation in the cash economy including the percentage of crops marketed by type of crop, seasonal price fluctuations and changes in local prices or in the self-consumption/marketing profile which has resulted from the adoption of new crop storage techniques (to be completed by May, 1986)..
- A study of other key factors including and evaluation of the region's absorptive capacity for sorghum grinding mills and an assessment of import needs (from Bangui to target area) and local merchant willingness/ability to assure supply.

4. **Conducting Introductory and Orientation Workshops for Village-Level Agents:** These will provide the opportunity for a two-way exchange of ideas and will also provide information concerning the target zones and the villages to be selected for the baseline study and initial technical interventions.
5. **Identifying and Introducing Innovations in Postharvest Technology:** Selected sites near Paoua will be used to introduce and monitor new technologies as outlined in the manual. Follow-up and evaluation of innovations made by the FAO project will also be done.
6. **Assessing Various Educational Tools and Strategies in Promoting Postharvest Innovation:** The Project team will start by exploring the kinds of techniques currently being used in other grass roots projects in the target area and evaluate their effectiveness. Contact will also be made with the CD Department's audio-visual services concerning their possible involvement in the production of manuals and posters. Ideas and suggestions will be sought during the orientation and training workshops of the village level agents and, above all, the Project team will reflect on its own experience of village culture and attitudes, gained during the baseline study. Trial runs of various methods will be conducted in selected villages.
7. **Developing a Monitoring and Evaluation System:** The system should be in place by the end of the first stage, having been developed as an output of the baseline study.
8. **Fielding First Stage Evaluation Mission:** This mission will be composed of representatives from COCAR, VITA, Africare, and USAID and will be scheduled 21 months after the project has started. The evaluation plan is included in Section V. of this document.
9. **Drafting of a Detailed Implementation Plan for the Project's Second Stage:** This will be written by the Project Director in consultation with all staff members and will be based on the recommendations of the evaluation mission.

V. PROJECT EVALUATION

A. This project is viewed as a preparatory or pilot activity. Very little information exists about actual losses in the project zone resulting from postharvest conditions. Project definition has been based upon visual observations in the project zone and indicative information in studies and work done in similar zones in Africa. As such, it is very important that during the first stage of the project baseline information be gathered that will allow a serious look at the economics of the intervention as the project progresses. During this first stage, the project also will be examining appropriate technologies, mostly labor rather than capital expending, and adopting, when possible, approaches already demonstrated in CAR or in ecologically comparable countries.

USAID will monitor project progress continually throughout the life of the project and will perform an informal review of project progress at the end of years 1, 3 and 4 of the project. Formal evaluations of the project will begin 3 months prior to the end of stage 1 and 3 months prior to the end of the project. The evaluation team will include members from USAID, GOCAR, VITA, AFRICARE and the Peace Corps. If USAID decides to employ non-project personnel in the formal evaluations it will be responsible for that portion's costs. USAID will have overall responsibility for the conduct of the evaluation. The first formal evaluation specifically will consider as a minimum the following:

1. The economic efficiency of alternative postharvest technologies as identified by VITA/Africare.
2. The number and location of farmers upon whom the project has had a direct impact and the extent to which they represent the group targeted in the project proposal.
3. The completeness and quality of baseline data as required under II.g. (Outputs) of the The Statement of Work.
4. The identification and introduction of postharvest technologies and the initial reaction to them of both directly and indirectly affected farmers
5. The conduct and effectiveness of workshops
6. The coordination established between project personnel and affected GOCAR agencies
7. The development of educational tools and strategies in promoting postharvest innovation
8. The monitoring and evaluation systems developed by the project

The first formal evaluation will serve as basis for determining whether USAID will continue support for the project and as a basis for formulating the workplan and implementation schedules for the final two stages of the project.

B. The final evaluation to be conducted during the fifth year of the project will evaluate the success of the project in meeting its goal and purpose. The scope for the final evaluation will be developed during the first formal evaluation.

VII. Reports

Required Project progress and other reports are described in Paragraph F of the Schedule, at Attachment 1.