PD-ABS-137
89689

AGENCY FOR INTERNATIONAL DEVELOPMENT

PROJECT DATA SHEET

1. TRANSACTION CODE: A (A = Add, C = Change, D = Delete) — Amendment Number

DOCUMENT CODE: 3

2. COUNTRY/ENTITY: HAITI

3. PROJECT NUMBER: 521-0245

4. BUREAU/OFFICE: USAID/Haiti — 5

5. PROJECT TITLE (maximum 40 characters): Seed Production and Multiplication

6. PROJECT ASSISTANCE COMPLETION DATE (PACD): MM 09 DD 30 YY 95

7. ESTIMATED DATE OF OBLIGATION (Under 'B.' below, enter 1, 2, 3, or 4)
A. Initial FY 92 B. Quarter 4 C. Final FY 92

8. COSTS ($000 OR EQUIVALENT $1 =)

A. FUNDING SOURCE	FIRST FY 92 B. FX	C. L/C	D. Total	LIFE OF PROJECT E. FX	F. L/C	G. Total
AID Appropriated Total	420	980	1,400	420	980	1,400
(Grant)	(420)	(980)	(1,400)	(420)	(980)	(1,400)
(Loan)	( )	( )	( )	( )	( )	( )
Other U.S. 1.						
Other U.S. 2.						
Host Country						
Other Donor(s)						
TOTALS	420	980	1,400	420	980	1,400

9. SCHEDULE OF AID FUNDING ($000)

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH. CODE 1. Grant	2. Loan	D. OBLIGATIONS TO DATE 1. Grant	2. Loan	E. AMOUNT APPROVED THIS ACTION 1. Grant	2. Loan	F. LIFE OF PROJECT 1. Grant	2. Loan
(1)				-0-	-0-	1,400		1,400	
(2)									
(3)									
(4)									
TOTALS				-0-	-0-	1,400		1,400	

10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each)

11. SECONDARY PURPOSE CODE

12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each)
A. Code
B. Amount

13. PROJECT PURPOSE (maximum 480 characters)

To produce and supply high quality seeds and sweet potato cutting at favorable prices to the farmers in order to avert the scarity of seeds and provide increased revenue as a result of higher yield.

14. SCHEDULED EVALUATIONS
Interim MM YY MM YY Final MM 03 YY 95

15. SOURCE/ORIGIN OF GOODS AND SERVICES
[X] 000 [ ] 941 [ ] Local [ ] Other (Specify) CACM

16. AMENDMENTS/NATURE OF CHANGE PROPOSED (This is page 1 of a ____ page PP Amendment.)

I have reviewed and approved the Financial Section and Financial Reporting for this project.

USAID/Haiti Controller Clearance:

Robbin Burkhart, Acting Mission Controller

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17. APPROVED BY
Signature: Gerard Bowers
Title: Acting Director, USAID/Haiti
Date Signed: MM 09 DD 14 YY 92

18. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION
MM DD YY

AID 1330-4 (8-79)

PROJECT AUTHORIZATION

Name of Country: Haiti

Title of Project: Seed Production and Multiplication

Number of Project: 521-0245

1. Pursuant to Section 533 of the Foreign Assistance Act of 1961, as amended, I hereby authorize the Seed Production and Multiplication Project (the "Project") for Haiti. The Project involves planned obligations of not-to-exceed 1.4 million dollars ($1,400,000) over a three year period, subject to the availability of funds in accordance with A.I.D. OYB/allotment process, to help in financing foreign exchange and local currency costs for the project. The planned life of the project is three years from the date of authorization.

2. The project consists of a Cooperative Agreement with the Organization for the Rehabilitation of the Environment (ORE), a Haitian non-profit organization, for a program to increase the availability of high quality seeds to small farmers for food production. The grant will support ORE's efforts to increase the supply of good quality seeds to food farmers and to develop and implement a sustainable seed production and multiplication program in Haiti. The project is comprised of the following components: a) Maintenance and multiplication of basic seeds; b) Production and multiplication of commercial seeds; c) Expansion of seed drying, handling and storage facilities; d) Seed Marketing; and e) Training and technical assistance to farmers and seed producers groups.

3. Goods and services financed by A.I.D. under the project shall have their source and origin in Geographic Code 000 or in Haiti, except as A.I.D. may otherwise agree in writing.

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4. The project agreements, which may be negotiated and executed by the Officers to whom such authority is delegated in accordance with A.I.D. regulations and Delegation of Authority, shall be subject to such terms and conditions as A.I.D. may deem appropriate.

Approved: _____
Gerard Bowers
Acting Director
USAID/Haiti

Date: Sept. 14, 1992

Clearance:

PPS:LDowning		Date 9/4/92
PPS:SGregoire		Date 09/03/92
ADO:MFontaine		Date 09/02/92
ADO:MMartin		Date 9/02/92
CONT:RBurkhart		Date 9-10-92

Drafter:GSpence _____ Date 9/3/92

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ORE SEED PRODUCTION PROPOSAL
for the period
October 1st 1992 - September 30th 1995

Presented by:
Sean Finnigan
Monique Finnigan
Eliassaint Magloire

August 1992

ORE

Organisation For The Rehabilitation Of The Environment,
1 Rue Oscar, P.O. Box 2314,
Port-au-Prince,
Haiti.

Telephone:
509-860251 (Camp Perrin)
509-451431 (Port-au-Prince)

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Executive Summary

The following proposal is designed to respond to the critical seed shortages currently faced by farmers in Haiti and offer solutions to the major problems of seed production and use in the southern region of Haiti which is one of the prime agricultural areas in the country. The production and distribution of quality seeds with a proven potential to increase incomes through higher yields, will provide a significant level of humanitarian aid to the farmers in the region who have been badly affected by the current crisis. The project will also provide a training program for commercial seed producers designed to improve the general level of seed production in the country.

A succession of climatic disasters, and recent socio-economic disturbances have reduced the supply of seeds for the major staple crops: corn, sorghum, black beans and sweet potato, to an unprecedented low. There is a chronic lack of seeds; and the farmers' reserves are depleted. The farmers' current situation is extremely serious: there is a danger that lack of cash due to the present economic situation, combined with the severe effects of adverse climatic conditions, will result in farmers being unable to regain normal production levels unless given immediate assistance with supplies of quality seeds adapted to their farming conditions.

The present crisis accentuates the numerous problems surrounding the question of seeds in Haiti: there is a recurring problem of scarcity (following natural disasters such as hurricanes, drought and floods); the farmers' general practice is to plant grains bought in the market. rather than prepared seeds; and the quality of seeds available is very poor offering low germination rates (30-50%) and low yields, (due to a lack of selection and improvement and inappropriate post harvest handling techniques. Resulting yields are considerably reduced by pests and diseases not treated in the grains). Planting costs are high and yields are low.

The project proposes to produce 600 metric tons of quality seeds, (400 corn; 160 sorghum; 40 black beans; and 4 million sweet potato cuttings), for immediate distribution to farmers at appropriate prices. The proposed project will follow on the same pattern as ORE's existing seed production program headed by Agr. Eliassaint Magloire, MS, University of Florida. Seeds capable of significant yield increases have been selected from the highest yielding varieties and local populations; they are produced with 96-98% germination rates, fully treated for insect and fungal problems. Over the past three years these seeds have been thoroughly tested and accepted by over 10,000 farmers.

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The objectives of the program are as follows:

1. The production of Commercial Seeds: to provide significant quantities of quality commercial seeds to the farmers in response to the present scarcity and to create a permanent revolving stock to assure future availability. Thereby increasing the production base for the major staple crops; and increasing the farmer's revenue by offering them higher yielding varieties: (sorghum M-50009 [200-300%]; corn [20%]; beans [20%] and sweet potato [47%]);

2. A Training program: to train commercial seed producers, farmer groups and NGO's in production processing and storage technologies. The training program will be open to groups throughout the country, and will provide hands-on experience for field and processing personnel.

3. The production of Basic Seeds: the project will continue ORE's on-going program of selection and genetic improvement of seed materials, and will make available the basic seeds (used to produce commercial seeds) to seed producers in the country. This will enable a rapid improvement of the germplasm stocks used as seeds for staple crops production throughout the country.

4. Phased-in Sustainability: the expansion of the on-going seed production facilities at ORE will enable the operation to become self-sustaining within a three year period. During an initial 18 month phase, activities will consists of basic seed production, an intensive training program and the production of a stock of 600 tons of commercial seeds to be used as a revolving stock. During a second eighteen month phase, AID funding will be reserved for the training and the production of basic seeds, and the cost of the commercial seed continuing production will be covered by seed sales. This will enable the operation to switch to a permanent self-sustained seed production facility able to cover the full production costs by the end of the three years.

The seeds produced will become part of a permanent revolving stock used to maintain and increase seed production for small farmers on a continuous basis. The seed will be sold directly by ORE and through its existing distribution network in the south, and through participating NGOs with adequate knowledge and facilities to store the seeds.

The target beneficiaries are small farmers, (with an average of less than 5 hectares per farmer). The proposed seed production will plant 36,375 hectares and depending on the plots size will involve up to 24,375 farmers. Seed production will continue to be centered in the Plaine des Cayes, where the climate, combined with the extensive irrigation systems, produces ideal conditions for year-round seed production without the constant threat of crop failure due to drought. ORE's present Camp Perrin operation will be expanded to process and store the increased quantities of seed.

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The training program involving seminars on field production, maintenance and storage techniques will benefit not only farmers and user groups, but also for NGOs, commercial seed producers and agricultural agencies with an interest in seed production and distribution. The use of appropriate soil conservation and soil fertility improvement techniques will also be advocated to farmers particularly in the hillsides. The program will use seminars, workshops and visual aids to disseminate the technology.

The availability of quality seeds, suitable for local conditions, and capable of increasing yields will give the small farmers in the southern peninsula of Haiti a much needed economic boost following their difficulties as a result of the present crisis. The supply of high quality basic seeds will enable other seed production operations to progress towards a general improvement in seed quality and yield improvements throughout the country.

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Background

The Present Agricultural Crisis in Haiti

The two major planting seasons in 1990 - 1991, and the current spring 1992 season, have been drastically affected by adverse climatic conditions, resulting in a sharp reduction in revenue from crop production, and also a scarcity of seeds. In addition, the critical October planting season of 1991 was missed by many farmers due to the political upheavals: with less than thirty percent of farmers planting the major crops.

The present seed and food shortage extends throughout the entire country. The shortage of seeds and the generally depressed state of the economy are affecting the farmers ability to produce and earn their livelihood. There is a risk that a continuing downward production trend may ensue unless critical inputs such as seeds are made available during the forthcoming seasons.

There are abundant signs of economic stress: increases in food prices; depletion of livestock reserves; an exponential acceleration of wood-cutting and charcoal production; a reduction of agricultural production (due to lack of cash, seeds and fertilizer); alarming numbers of economic/environmental refugees (boat people); unrenewed land leases; and increased instances of rural theft due to hunger.

The cost of living has risen with rampant inflation on all imported goods (approximately 100% in the past 6 months), and the standard of living is falling with the inability to buy what were a year ago considered common necessities. Nutritional levels are also falling as higher priced protein sources (beans and meat) become the luxury items which a large sector of the population can no longer afford to buy.

The general trend is clearly one of increasing decapitalization and hardship at the farmer level.

However, despite the current crisis, farmers are still eager to plant crops and there is increasing demand for high quality commercial seeds.

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Implementation Strategies

The project proposed in an initial eighteen month phase to produce and supply 600 tons of selected, treated seeds and 4 million sweet potato cuttings at favorable prices to the farmers in order to avert the current scarcity of seed and provide increased revenue as a result of higher yields. Activities will also involve the production of 30 tons of basic seeds for current and future seed production operations by ORE and other commercial seed producers. This will be achieved by expanding current ORE seed production program; and by expanding its seed training activities and its distribution network.

In a second phase, while training activities and basic seed production continue with project funding, sales of commercial will be used to fund their continued production, thereby rendering the operation self-sustaining by the end of the three year period.

The execution can be divided into the following elements:

- on-going development, maintenance and multiplication of basic (improved) seeds
- multiplication of commercial seeds (for farmer planting)
- expanding post-harvest handling, processing and storage facilities
- distribution and commercialization of seeds
- training & technical assistance to farmers and seed producer groups

Plant Material Production

Corn Seed

Background:

"Corn is one of the most important crops in Haiti, since it is an indispensable staple food for the population. Total corn production has been kept at approximately 200,000 tons a year. Cultivation methods have improved very little in the past ten years, with farmers continuing to plant poor-quality seeds in eroded soils throughout the country.. An exception to this is the Les Cayes zone. There, a research program conducted by CIMMYT/CRDA, with support from USAID, has managed to introduce a new variety - the Maquina 7827 - which produced good results even under traditional cultivation methods."

IICA / IFAD Agricultural Sector Assessment 1991.

Corn, together with rice, are by far the most important cereals in the Haitian diet. Corn accounts for 29% of the land planted in Haiti. However, the majority of the seeds currently available to the farmers are grains bought from the markets, with 30-50 % germination rates and carrying seed-born fungi which reduce yields.

Eliassaint Magloire, who had participated in the original CIMMYT/CRDA la Maquina 7827 introduction at Levy Farm, produced the first commercially significant quantities of this variety at ORE in 1990. The local farmers are gradually adopting this variety in the place of the local population which is a wide spread Chandelle race known as Chicken-corn. The demand for La Maquina is steadily rising throughout the country.

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Sorghum Seed:

Background:

"Sorghum has established itself as one of the foodstuffs most widely consumed by low-income communities, especially in rural areas. In Haiti, sorghum consumption has increased substantially during the last twenty years, reaching a present level of 135,000 tons a year.

"Total area under cultivation is thought to be around 158,000 hectares. If this is correct, yields are around 0.85 tons per hectare, a very low figure. The main attempt, up to now, to improve sorghum production in the country has been carried out by the University of Texas, with support from USAID, through the introduction of the new variety M-50009. This variety was tested and has been distributed to farmers, who have got yields of 2-3 tons per hectare, three times the national average.

"Although sorghum continues to be a main component in certain USAID projects, and some NGOs promote it as a major crop, there is at present no countrywide extension program to promote and support the crop."

IICA / IFAD Agricultural Sector Assessment 1991.

Sorghum is one of the most important staple crops. It is also heavily in demand as animal/chicken feed. However, yields are currently very poor.

The M-50009 variety, which currently represents less than 3% of the sorghum planted in Haiti, is rapidly gaining farmer acceptance and there is a high demand for the seed. E. Magloire who had participated in the original University of Texas - CIMMYT/CRDA trials, began seed production of the M-50009 at ORE in 1990. It is worth noting that due to the economic crisis, the demand for sorghum for food consumption is rising, and the acceptance of the M-50000 variety is rapidly increasing.

Black Bean Seeds:

Background:

"In spite of its importance as a source of protein for the population, bean production remained stagnant at approximately 50,000 tons a year during the last decade".

IICA / IFAD Agricultural Sector Assessment 1991.

Black beans cooked with rice or corn grits, or cooked as bean sauce and eaten with rice or corn grits, are Haitian national dishes. Black beans have the highest protein content of grains eaten nationally, and are considered the meat of the poor.

However, yields have been decreasing annually due to lack of soil fertility and diseases of which golden mosaic is the most serious. The best seeds currently available to the farmers are grains bought from the markets, with 30-50 % germination rates and carrying seed-born fungi which reduce yields.

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The multiplication ratio of black beans is so low that it is not generally considered a viable seed to produce commercially. However, due to its critical importance as a staple in the Haitian farming system, an extension program will train farmers in seed selection and storage at the farmer level. The seed produced will be used by farmers participating in the extension program to demonstrate the increased yields (20%) to be obtained with improved seeds.

Sweet Potato Propagation:

Background:

Sweet potato is a major staple crop for dry and infertile soils where corn and beans can no longer be grown. Existing varieties have extremely low yields due to natural degeneration and virus infections. Farmers are always looking for higher yielding clones.

Yield Increases / Benefits

The significance of the yield increases obtained with the improved seeds will become apparent when sufficient quantities of seeds are produced and distributed. The new sorghum variety (M-50009) produce double or triple the tradition harvest, the Tapato sweet potato produces 47% yield increases, and corn and bean seeds give 20% increases.

Regional Production Infrastructure

The plain des Cayes is one of the best areas for seed production in the country. The alluvial soils have appropriate Ph levels and the climatic conditions are conducive for intensive production. The rainfall is generally well distributed, and the two major irrigation systems of the Ravine du Sud and the Acul provide over 5,000 ha. of irrigated land. Corn, beans, sorghum and sweet potato are major crops in the area, providing an infrastructure of laborers familiar with these cultures. There is no sugar cane production in the northern side of the plain where the seeds are produced. This avoids the problem of insects such as borers which are a pest problem on an epidemic scale in such areas as the Plaine du Cul de Sac.

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Background Data for Project Seed Production

Currency amounts are written in Gourdes *PROPOSED SEED PRODUCTION*	*CORN*	*SORGHUM*	*BEANS*	*SWEET POTATO* (cuttings)	*TOTAL*
PROPOSED ORE SEED PRODUCTION (MT)	400 MT	160 MT	40 MT	4,000,000	
GRAIN-SEED COST	G 1,188,000	G 475,200	G 294,800	G 20,000	G 1,958,000
HA. PLANTED WITH SEED PRODUCED	20,000 ha	16,000 ha	500 ha	62.5 ha.	36,563 ha
# BENEFICIARIES (1.5 HA. FARMER)	13,333	10,667	333	42	24,375
AVERAGE TONS PRODUCTION / HA.	.61 MT	.76 MT	.71 MT	3.36 MT	
CROP VALUE / TON (ORE/ANDAH 92)	G 2970	G 2970	G 7370	G 5000/ million	

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Financial Summary

The Financial Budget and illustrative Detailed Budget are attached in Annex 1:

Year One period, October 1st 1992 - September 31st 1993
Year Two period, October 1st 1993 - September 31st 1994
Year Three period, October 1st 1994 - September 31st 1995

The following point should be noted about the budget and funding requirements:

> Due to the seasonal nature of the project, full implementation within the twelve month period will be dependant on funds availability during the critical implementation phases: for equipment at the startup period, seed contract payment as per the Implementation Timetable and for completion of the storage facilities prior to the first harvest.

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Seed Production

Proposed Production

The project proposes to produce 600 metric tons of quality commercial seeds: 400 corn; 160 sorghum; 40 black beans; and 4 million sweet potato cuttings. 30 tons of basic seeds will also be produced.

Basic & Commercial Seed Production

Production of Basic Seed: The germplasm seed bank (based on ORE existing germplasm) will be expanded, involving the selection and breeding of suitable seeds, with high temperature tolerance and disease resistance, to encourage higher yields. The program will be carried out on ORE controlled plots. The resulting breeder seeds will be multiplied and used to produce basic seed. Maintenance of established varieties will be continued for basic seed production.

Multiplication of Commercial Seeds: The selected basic seed will be planted by a network of trained seed multipliers. These farmers who have been trained by Agr. Magloire, will be monitored by a team of ORE multiplication supervisors to ensure that only high quality seeds are produced for the project. (This system has been successfully used for the past two years by ORE and has produced seeds which have consistently out-performed all local stocks in trials).

Once the multipliers' seed has past the extension teams quality evaluation, it is purchased at harvest time, dried, treated and stored at the ORE facilities in Camp Perrin.

Post-harvest Processing and Storage of Seeds: The project will expand ORE's existing seed post-harvest processing and storage facilities to enable an annual production of over 300 tons of seed. The crops will be threshed, shelled and dried, with strict control of seed humidity levels to ensure long conservation and high germination rates. Seeds will be calibrated to ensure the highest possible performance, and reject grains will be sold on the local market as food.

Prior to delivery seeds will be treated a) with pesticides to reduce the incidence of fungal diseases which traditionally are carried in seeds and are an important cause of reduced yields, and b) with insecticides to control insect problems before planting. The basic and commercial seeds will be stored in metal silos and/or bags. Storage conditions for seeds is based on our experience conserving seeds at over 95% germination rates for up to twelve months, using the same technology employed elsewhere in the tropics.

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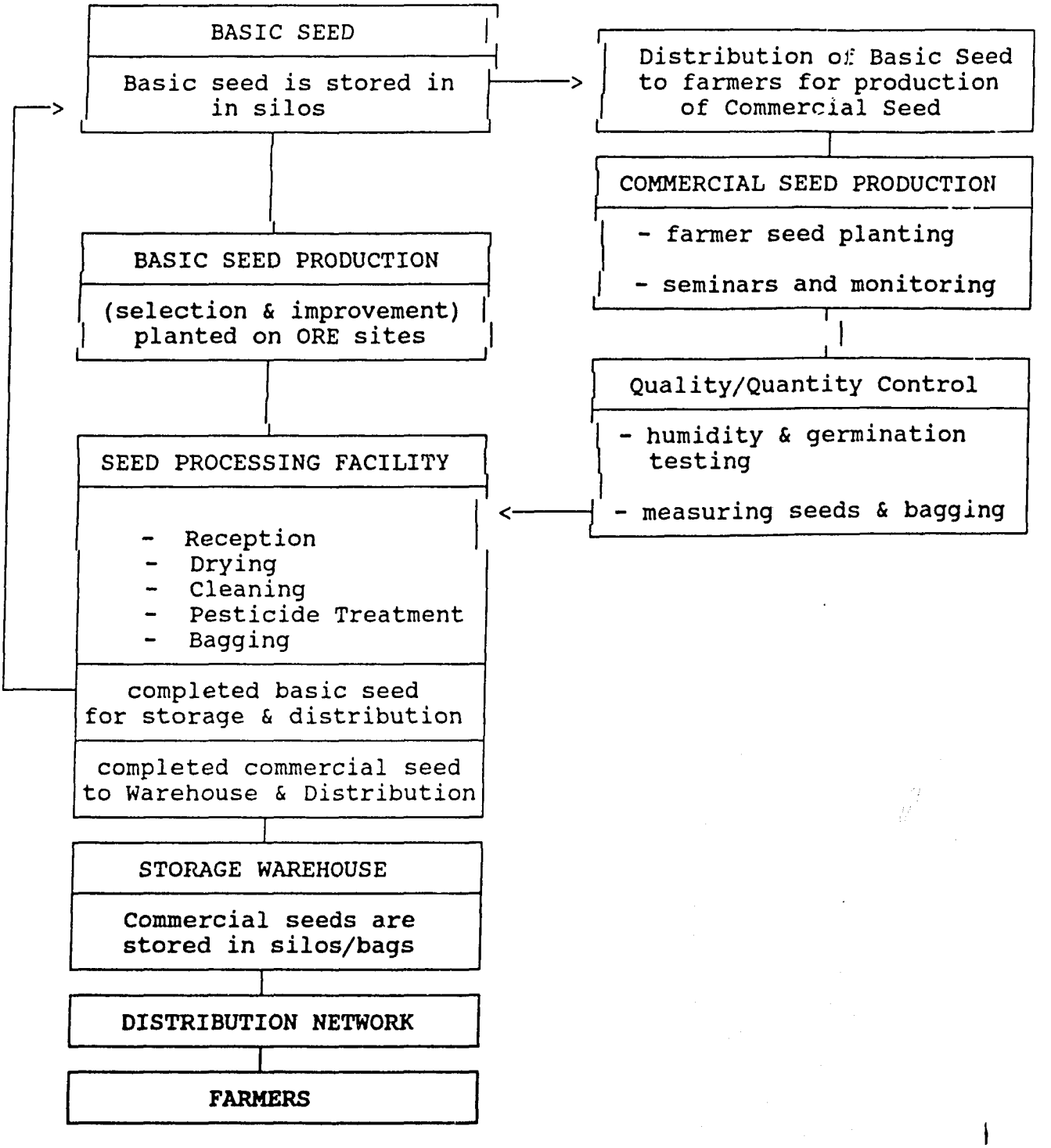
Seed Production Flow-Chart



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Corn Seed Production

Maïs (Zea mays)

Varieties being produced

The two key varieties of corn to be propagated are local population Chicken-corn (80%) and La Maquina 7827 (20%). The local farmers' demand for La Maquina variety of corn has risen from 6% in 1984 to about 20% today. (Agr Magloire has been working with La Maquina since 1981: it has performed well at all the same altitudes as Chicken corn.)

CORN	
Maintenance of varietal purity	Selection of best family (half-sib)
Genetic improvement	Cross breeding (full-sib)
Adaptation selection	Testing full sib in 3 areas
Physical improvement	a) 30% increase germination, due to harvesting, drying & storage techniques b) Increased seed viability due to seed calibration and pest treatment
Plant introduction	Main stock is local, with imported varieties tested for disease resistance
Yield improvements	33% yield increases shown in selection trials

Selection, improvement and multiplication processes

The objectives of the corn improvement program are to: a) improve the basic population of the Chicken-corn and Maquina 7827; b) select the best families for disease resistance; and c) improve the physical aspect of the seeds. The reciprocal full sib selection method is currently being used to improve the local population of chicken-corn. The best 20 crosses were selected. The breeder seed of C1 is produced by ORE in isolated fields.

Maintenance of varieties and the production of basic seeds are made by ORE technicians. Farmers in the irrigated areas of the Les Cayes plain have been trained by ORE as multipliers. They multiply seeds under project supervision. The seeds are purchased from plots which respond favorably to specific norms for seed multiplication. The seeds are calibrated, treated and stored.

Sorghum Seed Production

(Sorghum vulgare)

The two varieties to be propagated are the M-50009 (80%), a non photo period variety which produces 2 to 3 tons per hectare, and the local population (20%).

SORGHUM

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Maintenance of varietal purity	Isolated multiplication & selection of basic seed
Genetic improvement	Mass selection and line selection
Physical improvement	a) 30% increase germination, due to harvesting, drying & storage techniques b) Increased seed viability due to seed calibration and pest treatment
Yield improvements	Isolation of lines for bulk variety under specific conditions

Selection, improvement and multiplication processes
Family selection is being made in the local population. The highest yielding families are being selected to form a new population. All the seeds are produced by ORE technicians on our plots. Unlike production plots for beans and corn, some of the sorghum plots are rain-fed rather than irrigated.

Black Beans Production

(P. Vulgaris)

Varieties being produced
The two varieties of beans to be propagated are the local population (99%) and Tamazulapa (1%).

BLACK BEANS	
Maintenance of varietal purity	Isolated multiplication & selection of basic seed
Genetic improvement	Mass selection and line selection
Adaptation selection	Line testing in 3 areas
Physical improvement	a) 30% increase germination, due to harvesting, drying & storage techniques b) Increased seed viability due to seed calibration and pest treatment
Plant introduction	Main stock is local, with imported varieties tested for disease resistance in different micro-zones
Yield improvements	Isolation of lines for bulk variety under specific conditions

Selection, improvement and multiplication processes
Mass selections of the local population are currently being made and followed by line selection. The selected lines are tested for tolerance to high temperature and Golden Mosaic. Farmers in the irrigated areas of the Les Cayes plain have been trained by ORE as multipliers. They multiply seeds under project supervision. The seeds are purchased from plots which respond favorably to specific norms for seed multiplication. The seeds are calibrated, treated and stored.

Sweet Potato Production

(Ipomea batatas)

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Varieties being produced
The Tapato from Puerto Rico accounts for 90% of the material to be propagated. Experimental and promotional quantities of the other varieties will also be produced.

Selection, improvement and multiplication processes
Plant introduction is the best way to provide new high performance materials to the farmers. New varieties undergo comparison trials to determine which have the highest yield under local conditions. Following the field tests, the different varieties are evaluated for their taste. The best varieties are then mass propagated on ORE plots for distribution of cuttings.

Chemical Fertilizers

The use of fertilizers in the Les Cayes area is severely limited by the supply and price problems. The situation is further aggravated by the fact that some but not all types of fertilizers are available at the crucial planting seasons. Often only unsuitable fertilizers are available and at a high price. It is essential that the project has on hand a stock of suitable fertilizer both for the production of basic seeds on its own lands, and for the multipliers who will be producing commercial seeds for the project. Fertilizer will be purchased at the lowest possible price in order to ensure the sustainability of the operation. Contacts have been established for bulk importation of suitable fertilizers.

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Implementation of Seed Production

The implementation of the commercial seed production program will be based on an expansion of ORE's existing program in the five main areas where ORE has traditionally been producing seeds: Mersan, Chantilly, Laborde, Berault, Tuffet.

The Field Production steps are as follows:

a) registration of farmer multipliers and determining basic seed requirements.
b) basic seed distribution to farmers
c) monitoring germination after one week
d) site visit during flowering period to check conditions for pollination, diseases and rogging.
e) pre-harvest site visit to check for disease, estimate yields and fix harvest date.
f) visit to the farmers' house to check materials and fix delivery dates.

NB. Sites with diseased or unsuitable crops are eliminated from the program at any time they are identified during the process.

The Seed Multiplication Team

The seed multiplication team consists of 3 agronomists, 3 technical supervisors with 8 assistants and a team of 21 propagation technicians. Their duties consist of basic seed production and supervision of commercial seed production which includes site identification, basic seed distribution, monitoring, coordination of seed collection, post-harvest processing and conditioning.

The production of basic seed is under direct ORE supervision on rented sites. The entire production operation of basic seeds is undertaken by the multiplication team, including planting, weeding, irrigation, rogging and family selection etc. This activity represents a large part of their activities.

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Production Timetable

The following production timetables demonstrate the production steps involved for the four project crops (activities prior to project commencement are givem to demonstrate the agricultural cycle):

Sorghum Production Calendar

DATE	ACTION	REMARKS
MAY 92	Harvest 2 tons of basic seed	
SEP 92	Plant 60 kg of basic seed on ORE sites	6 ha. required for planting
SEP 92	Plant 900 kg of basic seed with multipliers for production of commercial seed	90 ha. required for planting
DEC 92	Harvest 8 tons of basic seed Harvest 80 tons of commercial seed.	Approximate cash payment required to multipliers: ₵237,600.
JAN 93	80 tons commercial seed available for planting season: (50009 Sept 93; local variety May-Aug 93) Three tons of basic seed available to producer groups	

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Corn Production Calendar

DATE	ACTION	REMARKS
MAY 92	Harvest 3 tons of basic seed	
AUG 92	Plant 80 kg of basic seed on ORE sites	4 ha. required for planting
AUG 92	Plant 2.25 tons of basic seed with multipliers for production of commercial seed	113 ha. required for planting
DEC 92	Harvest 6 tons of basic seed	
DEC 92	Harvest 100 tons of commercial seed.	Approximate cash payment required to multipliers: ₵297,400.
JAN - FEB 93	100 tons of commercial seed available for planting season (Jan-March) 3 tons of basic seeds available for producer groups	
FEB 93	Plant 100 kg of basic seed on selected multiplier and ORE sites	5 ha. required for planting
FEB 93	Plant 2.25 tons of basic seed with multipliers for production of commercial seed	113 ha. required for planting
MAY 93	Harvest 8 tons of basic seed Harvest 100 tons of commercial seed.	Approximate cash payment required to multipliers: ₵297,400.
MAY 93	100 tons of commercial seed available for planting season: (July 93 - Sept 93) - 3 tons of basic seed available for producer groups	

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Bean Production Calendar

DATE	ACTION	REMARKS
APR 92	Harvest 2.5 tons of basic seed	
OCT 92	Plant 330 kg of basic seed on ORE sites	4.5 ha. required for planting
OCT 92	Plant 1.5 ton of basic seed with multipliers for production of commercial seed	20 ha. required for planting
DEC 92	Harvest 3.5 tons kg of basic seed	
DEC 92	0.7 tons of basic seed available for distribution for multiplication by collaborating farmer groups and NGOs	
DEC 92	Harvest 15 tons of commercial seed.	Approximate cash payment required to multipliers: ₵110,550.
JAN - FEB 93	15 tons of commercial seed available for planting season	
JAN 93	Plant 330 kg of basic seed on selected multiplier and ORE sites	4.5 ha. required for planting
JAN 93	Plant 0.5 ton of basic seed with multipliers for production of commercial seed	6.5 ha. required for planting
APR 93	Harvest 3.5 tons of basic seed	
APR 93	Harvest 5 tons of commercial seed.	Approximate cash payment required to multipliers: ₵36,850.
APR 93	5 tons of commercial seed available for planting seasons: (Jul 93 & Sep 93) - .5 tons of basic seeds available for producer groups.	

Sweet Production Calendar

DATE	ACTION	REMARKS
NOV 92	Preparation of cuttings on ORE Site	
FEB 93	Harvest cuttings to replant for May production	
MAY 93	Plant 207,000 cuttings of Tapato sweet potato	6.5 ha. required for planting
AUG - SEP 93	Harvest 2,000,000 cuttings seed on ORE sites & available for farmer planting	

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Based on peak period plantings of 113 ha of corn, 30 ha of beans and 90 ha of sorghum (August - Jan) involving approximately 250 farmers, (average farmer site size 1 ha.), each multiplier technician will be responsible for supervising 23 farmers. Experience to date shows that the 23:1 farmers-technician ratio is perfectly adequate given the number of visits and other activities required.

The collection process is handled at the multilpier houses in each locality as follows:

a) the technicians visit to inspect the material:
   - seed humidity levels and germination rates are tested at the Centre and only material under 17% humidity and with 95-98% germination rates are accepted.
   - seeds are measured and quantities recorded for payment. 14, 15, 16 and 17% humidity level seeds are bagged separately and color coded.

b) seeds are transported to the ORE Camp Perrin processing facility.

The Seed Processing Operation

The seed processing operation based in the Camp Perrin facility will handle 20 tons of seed per day based on peak production period requirements. The processing team, who are active in the basic seed production program during off-season periods, consists of an agronomist, 3 supervisors and 21 technicians. The processing involves the following steps:

- Reception of seeds.
- Commercial seeds are received in grains (threshed and shelled by farmers), but basic seeds go through threshing and shelling process at the facility
- Drying to 14% humidity is achieved by two methods - solar and hot air blowers:
  - Solar drying (two days from 17% to 14%) on concrete drying areas covered with tarps to avoid burning the seeds. (250 m^2 drying area)
  - Hot air blowers (three hours from 17% to 14%) in 1 m^3 concrete bins. Hot air is supplied from solar catchment area in the roof. (3 1m^3 bins with blowers - 1 blower dries 4 tons of seed [starting at 17%, dried at 14%] per day
- Cleaning is achieved with a calibrated seed cleaning unit
- Seeds are stored in silos where they can be fumigated without leaving toxic residues until they are required during the next planting season.
- Pesticide treatment is made prior to delivery.
- Bagging is done immediately after seed treatment manual measuring equipment and electrical sewing machines. Label containing seed data are sewn on at this time.
- The bagged seeds are then transferred to the seed storage warehouse area to await delivery.

NB. It is important to understand that during the peak production period large quantities of seed must be processed per day. The facility is therefore designed to operate without delays between the four major steps: drying, cleaning, treatment and bagging. Machinery and floor layout have been designed to handle the required quantities within an efficient time-frame.

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The processing facilities design is based on ORE's experience over the past three years; two visits (including a production training seminar) to CIAT's seed production program and visits commercial seed facilities in Columbia; and consultation with agronomists and engineers in Haiti.

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Storage Installations & Equipment

Seed Storage

The majority of the commercial seeds will be stored in metal silos housed in a permanent building until required during the next planting season. This facility reduces the effect of temperature and humidity fluctuations and ensures a maximum protection from loss of seed viability during storage. The seeds in silos will also be regularly sampled to ensure that suitable conditions are maintained. A concrete roof, to provide the best protection against weather conditions, will be added to an existing 192 square meter warehouse area which can shelter up to twelve silos.

Basic Seeds

Basic seeds will be stored in silos between planting seasons. Genetic seeds will be stored in a $4m^2$ cold room according to the families selected. This stock of genetic seeds constitute the germ-plasm bank from which future improvements are made. This valuable collection will be kept refrigerated to ensure the seed viability, for over 12 month periods. The present stock is as follows: beans - 400 lines; corn - 200 S1 line, 250 full-sib crosses Chicken corn and 600 half-sib LaMaquina families; and 250 Sorghum families.

Reserve Stock

A Reserve stock of basic seeds will be kept at planting to provide a source of germplasm for commercial seed production in the case of a natural disaster. The recurring shortages which occur after adverse climatic conditions indicates that a reserve is essential to maintain a constant supply of seeds for farmer multipliers to reproduce commercial stock.

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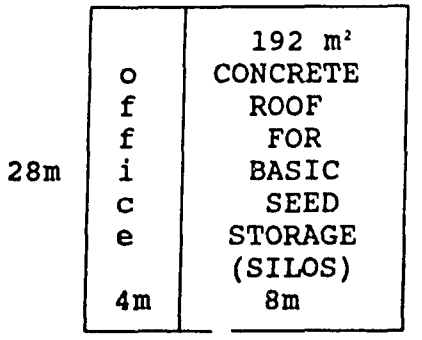
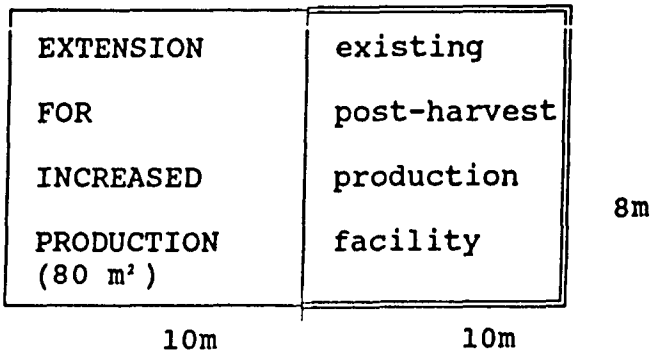
Preliminary design for storage facilities:



Post Harvest Facility



Expanded seed facility building: 80 sq meters, concrete block and tin roof. Area for threshing, calibrating, drying and storing seeds.

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Equipment

The following items of equipment will be required for the seed production program:

DESCRIPTION	EXISTING EQUIPMENT		NEW EQUIPMENT	
Tractors [1]		-	1	70 HP 4WD tractors
Trailers	1	3 m^3	1	7.5 M^3 trailers
Generator [2]	1	5 KW diesel	1	30 KW diesel Fuel
Storage Tank		-	1	3 m^3 fuel tank
Seed Cleaner	1	0.5 ton / hr		
Threshers	1	0.5 ton / hr		
Dryers		-	3	½ HP
Corn Shellers	1	0.5 ton / hr	1	½ HP / 0.5 ton / hr
Mixer/seed treater	3	0.15 tons / hr	1	½ HP /4 tons / hr
Label/Sewing machines	1	110 50/60	1	110v 50/60 Hz
Pallet Truck		-	4	1000 lb & 2100 lbs
Portable Beam Scale		-	1	450 kg metric
Hygrothermograph		-	1	220v (-10 to 50 C)
Tornado Blower		-	1	220v 1½ HP 50/60Hz
Dehumidifier		-	1	110v
Elevator	2	2.5 & 5m		-
Silos	7	43 tons total	3	66 tons total
Hanging Scale	1	10 kg		-
Moisture Meter	1	battery		-
Seed Germinator	1	110v 1 Ph		-
Truck	1	4WD Dump Truck 25 ton		-
Pickup Trucks	3	4WD Pickups 2.5 ton		-
Motorcycles	6	200 cc (3) 125cc (3)		-
Cold Room			1	$4m^2$

[1] There is a chronic shortage of tractors and plough in the Plain of Cayes, resulting in delays in planting each season. The tractors are intended to be used on ORE sites, and to facilitate co-operating farmers to plant project seeds on time. There is also a shortage of oxen driven ploughs. Existing resources are totally inadequate to supply the services required on time.

[2] The specifications of electrical equipment have been reviewed by a specialist.

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Seed Distribution

Seed Distribution and Pricing Policy

As a non-profit organization, ORE pricing will transfer procurement and/or production costs as well as handling, administration costs to the final beneficiaries. The seeds produced will become part of a permanent revolving stock. The stock will be used to maintain and increase seed production for small farmers on a permanent basis.

During the first year the seeds will be sold at net product cost price without project overhead costs and equipment charges. This price will be the same as the current market price for grain seeds. This subsidized price will enable the farmers to buy the seeds during the current period of economic stress. But it will not undermine either the current market price for grain (upon which farmers depend for their livelihood), or the selling price of the seeds which are critical for it to become a sustainable activity. During a second phase, prices will be raised to cover the full production costs including all salaries and equipment maintenance etc. allowing the activity to become self-sustained.

The seed will be sold directly by ORE and through its existing distribution network in the south. The majority of the seed will be distributed only at the planting season, thereby avoiding the risk of poor storage conditions elsewhere. Seed sales and distribution will be carried out as follows: a) through ORE's existing network in the south (20,000 - 30,000 farmers); b) through affiliated NGOs in the south (20,000 farmers).

The seed will also be sold to NGOs and farmer groups in the region who can show that a) they have adequate knowledge and facilities to store the seeds, b) the seed will be sold at pre-arranged prices to small farmers in their area and not resold in bulk to others. A month's credit will be allowed on the sale of seeds. The funds from the sale of seeds will be used to continue seed production on a permanent sustainable basis.

Regular information bulletins concerning basic and commercial seed availability will be sent to a comprehensive list of organizations and businesses interested in seed production and sales. Information about seed availability and sales outlets will also be broadcast in the south of Haiti by radio as part of the farmer training outreach program.

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DISTRIBUTION PLAN

The following table illustrates the distribution network for the estimated quantities of seed to be produced:

Estimated Annual Distribution

Region	Corn MT	Beans MT	Sorghum MT	Sweet Potato (millions cuttings)
ORE (Macaya foothills - PST)	20	10	35	1
ORE Plain des Cayes	100	10	40	1
UNICORS	50		4	
Other NGOs (Cayes)	30		1	
Total Distributed	200	20	80	2

DISTRIBUTION NETWORKS

ORE (Macaya foothills - PST)

Distribution will be made through the four existing PST centers, (Camp Perrin, Saut Mathurine, Formond, Gros Morne)

ORE Plaine des Cayes

The five Centre d'Achats: (Mersan, Chantilly, Laborde, Berault, Chantal, Tuffet), and two centers in Les Cayes and Lepretre (through existing multiplication staff who live in these areas).

UNICORS

The UNICORS network of cooperatives with over 20,000 will be an excellent distribution system for the stated quantities of seeds.

AID will provide additional informations on distribution networks for potential expansion.

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TRAINING

TRAINING ACTIVITIES

Training is an essential component of the seed production program for the following reasons: a) current seed production levels are limited by lack of trained personnel; b) a large percentage of available seeds are wasted due to ignorance of appropriate storage and handling techniques; c) farmers who are planting grain rather than professionally prepared seed have to double the amounts of seeds planted to overcome low germination rates, need demonstrations of the advantages of seed rather than grains; and d) yields are low due to lack of appropriate production technology and poor soil fertility. ORE will submit to AID for approval the training plan for the second and third year of the project. AID will provide additional information on potential participants for the training program.

The training will be provided for the following groups:

- farmer groups: to assist in storage and planting technologies at the farmer level; also bean selection training to maintain the seed variety of bean crops;

- ORE staff and ORE seed multipliers: to enable higher levels of seed production;

- NGOs, commercial seed producers and other agricultural agencies: to try to expand the seed production base in Haiti, and to ensure distribution of seeds is carried out professionally without the heavy losses usually associated with poor storage methods;

- agricultural technicians, commercial seed producers and agronomists:through distribution of training materials and seminars.

In this way it is hoped to increase the current awareness of seed production and storage technologies at all the levels of the agricultural spectrum. Training will be focused around farmer and NGO level seminars and workshops. Demonstration sites are also a powerful means of convincing farmers that new crop varieties and new production techniques are profitable. By including a small percentage of the multiplication sites in the target areas it is possible at no additional cost to use them as demonstration sites. Seminars and workshops can be held on these sites as well as at central locations such as the ORE Camp Perrin headquarters. Video films, slide shows and printed material will be used, and made available to interest NGOs, commercial seed producers and agricultural agencies. Audiovisual materials, (on the same lines as the Improving Mango Production in Haiti film produced in 1991 by the ORE Mango project), will be made covering the following subjects: seed production, seed storage, crop production techniques and hillside crop production techniques. Video material based on the successful model of the mango and other technical films produced by ORE, will be designed to interest several different audience groups, (planners, agronomists, technicians and farmers). Sets of slides will also be made on the same subjects.

TRAINING OUTPUTS

- **In-field training seminars (Planting, rogging, post-harvest and storage) - 550 farmers.**

- **NGO and ORE staff: 2 seminars (of three sessions each) per year - 60 technicians.**

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Activities & Target Groups

The training program will be scheduled for the main topics to coincide with the corresponding production and post-harvest phases.

TRAINING ACTIVITIES	DESCRIPTION	TARGET GROUPS	TRAINING METHODS
Field Production & Selection	Full training in all aspects of seed production and handling. Training of multiplier farmers to produce commercial seeds. Farmer level seed selection will focus on bean seeds (which are too expensive to produce commercially). Training will involve family selection in field.	- farmer groups - ORE staff - NGOs - ag technicians - agronomists - ag agencies - commercial seed producers	- seminars - workshops - video films - slide shows - radio
Post-harvest Processing & Seed Storage	Drying technologies, training in seed storage, germination testing and insect treatment with a) seeds in high volume silos, b) 50kg silos, and c) improve traditional storage techniques.		
Improved Production Techniques	Training in planting, (reduced planting density with high germination seeds etc.), irrigation and fertilization to optimize yields. Focus on zero tillage techniques to organically increase soil fertility. Training in hillside planting with focus on soil conservation and hedgerows to avoid soil erosion; and zero tillage techniques to organically increase soil fertility.		

Year One Training Timetable

Bean seed production seminars

General introduction to seed production and plantation techniques ..... 12-16 Oct 92
Rogging and field selection ..... 23-27 Nov 92
Harvest and post-harvest processing and storage ..... 11-16 Jan 93

Corn seed production & Bean maintenance program seminars

General introduction to seed production and plantation techniques ..... 8-12 Feb 93
Rogging and field selection ..... 5-9 Apr 93
Harvest and post-harvest processing and storage ..... 7-12 Jun 93

ORE Staff Training

4 technicians will participate in seed production training with CIAT and/or CIMMYT during Year one, and 1 person will be trained in computer programming to facilitate the in house production of inventory and accounting programs.

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Activity Timetable

The following timetable illustrates the proposed schedule for project execution. These dates will be dependant on the availability of funds, seasonal agricultural factors and possible shortages of supplies and equipment.

ACTIVITIES	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
SEEDPRODUCTION												
Bean planting:	XXX			XXX								
Bean harvest			XXX				XXX					
Bean processing			XXX	XXX			XXX	XXX				
Bean storage				XXX				XXX	XXX	XXX	XXX	
Bean delivery				XXX	XXX					XXX		XXX
Corn planting	Aug				XXX							
Corn harvest			XXX	XXX				XXX	XXX			
Corn processing			XXX	XXX	XXX			XXX	XXX			
Corn storage										XXX		
Corn delivery				XXX	XXX	XXX	XXX			XXX		XXX
Sorghum planting	Sep											
Sorghum harvest				XXX	XXX							
Sorghum processing				XXX	XXX	XXX						
Sorghum storage						XXX	XXX					
Sorghum delivery								XXX	XXX	XXX	XXX	XXX

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ACTIVITIES	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
IN COUNTRY TRAINING												
Participants	XXX											
Bean seed production:												
planting	XXX											
rogging		XXX										
harvest, processing, storage				XXX								
Corn Seed Production:												
planting					XXX							
rogging							XXX					
harvest, processing, storage									XXX			
Bean seed maintenance:												
planting					XXX					XXX		
rogging						XXX					XXX	
harvest, drying, storage							XXX					XXX
OVERSEAS TRAINING												
Seed Production		XXX										
Computer programming					XXX							

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ACTIVITIES	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
BUILDINGS												
Contractors	XXX											
Start	XXX											
Finished			XXX									
PROCUREMENT												
Orders	XXX											
Deliveries		XXX	XXX									

The timetable schedule will be repeated annually with the exception of overseas training, equipment procurement and building activities.

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Three Phases to Sustainability

One of the principal objectives of the current project is to establish a permanent sustainable seed production facility which will after the three year expansion period operate without subsidies.

The key factors in establishing sustainability are the volume of seeds required to generate a markup sufficient to cover all the production costs; establishing the most cost-effective production methods; and encouraging the farmers to utilize improved seed so that they become familiar with its better quality and are willing to pay for this value. During the initial months of the project a financial consultant will be sought to help establish the best financial framework for sustainability. Existing accounting systems will be modifed to allow improved analysis of production cost-effectiveness.

AID will cover production costs as follows:

Phase 1 (months 1-18): Commercial and Basic seeds (& training)
Phase 2 (months 19-36): Basic seed (& training)
Phase 3 (after 36 months): no costs

An illustrative expense-revenue projection is provided in Annex 2 This study demonstrates that the production of 600 tons of seeds by the project will create a sufficient revolving fund to support sustainable activities by the 36 months.

Clearly the percentage of markup which the farmers are willing to pay is a critical factor. This season ORE is selling corn seeds with a markup to cover costs. Farmer acceptance of the seeds' value is increasing and by year three it is feasable to expect full production costs to be covered by the selling price. Sustainability will be monitored on an on-going basis throughout the life of project.

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EVALUATION

Evaluation of the project will involve 3 components: a) a short-term financial evaluation designed to facilitate self-sufficiency in the seed production unit; b) short-term evaluation by a seed production specialist; and c) evaluation by local agricultural consultants to gauge the impacts of seeds, market prices, farmer demand and farmer benefits from increased yields ; also to help establish monitoring systems to create viable data for on-going evaluation of the seed program. The selecting of the short-term consultants and the development of the scope of work will be done jointly by USAID and ORE. AID will also provide in-house expertise to assist the short-term consultant to develop appropriate benchmark/indicators for program monitoring in association with ORE.

Short-term Financial Consultant: a financial consultant will be recruited at the beginning of the project form an organization such as ISEC to assist ORE in market and production planning and to determine the required production level to meet self-sufficiency. Financial indicators will be specified to monitor ORE's progress towards self-sufficiency. The consultant will also recommend improvements to the existing ORE accounting systems, so as to produce reporting which is helpful for financial analysis in relation to the seed production activities.

Short-term Production Specialist: a seed production specialist, with experience in tropical developing nations (preferably in Latin America, such as CIAT experts), will evaluate the seed production and determine if the current organization of the seed production unit is adequate. It is essential that such a specialist should have adequate knowledge of the local farming systems and local constraints to ensure that a maximum relevancy of the evaluation. The specialist's recommendations may be sued as a basis for revision and refinements to the program.

Local Evaluation: a local team of agricultural consultants will be recruited to evaluate impact of the seed program in the region. The following aspects will be evaluated during the planting season:

- Local grain seed prices and ORE seed prices at planting time (including external factors such as seed donations, scarcity and climatic conditions);
- seed distribution data concerning beneficiaries, average plot size, and regional information about distribution and demand;
- a number of farmer control plots will be monitored every season (from planting through harvest) to measure the impact of the improved seeds.
- market prices for crops prices at harvest time and net benefits to farmers from increased yields.

This information will enable AID, project personnel and seed producers to accurately analyze the impact of the program based on filed data, and objectively gauge its validity. It will also crate a solid basis for future research, and analysis and evaluation. Accurate and objective evaluation of the key factors affecting seed and crop production in the country will increase the potential for expanding crop improvement activities to other groups whether NGOs involved in agriculture or agro-forestry or commercial agricultural businesses.

SEMESTRIAL REPORTS

Ore will supply AID with semestrial report covering all project activities.

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Benefits

Reasonably Priced Seeds to Combat the Present Scarcity

The reduction of over 30% of major crop harvests during the recent seasons due to drought and floods combined with a catastrophic economic situation clearly indicate the need for seeds. Seed prices will inevitably rise, thereby prohibiting the poorest farmers from planting during the next season. The availability of seeds at the normal grain prices will allow the farmers to plant again at a reasonable investment level.

Increased Revenue from Higher Yields

Field trials and farmer plantings over the past three years have clearly indicated that meaningful yield increases have been consistently obtained from the four crops to be produced by the project. The following graph demonstrates the increase obtained with these crops.

It is worth noting that in our experience, farmers have put in soil conservation systems at their own expense on their land in exchange for access to purchase high quality seeds.

Beneficiaries

Background: The project will be dealing with low-income farmers, (with average annual incomes of less than $360 US a year). Agriculture is mainly small-scale subsistence farming and employs over 65% of the work force. The majority of the population do not have ready access to safe drinking water, adequate medical care, or sufficient food. Few social assistance programs exist, and the lack of employment opportunities remains the most critical problem facing the economy.

The production per head of the major cereal crops (corn, sorghum and beans) have been steadily decreasing over the past 20 years, with the exception of rice. Self-sufficiency in food production is not being achieved. Daily intakes of 1600 g calories and 40 g. protein is below the estimated minimum daily requirement of 2200 calories per day, and is falling as cereal crops become more scarce. The proposed project will directly benefit around 24,375 low-income farmers and their families in the agricultural sector. An estimated cross-section of the typical farmer beneficiary may be characterized as follows: 81% with .5 - 2 hectares of land and 19% with 3 - 19 hectares.

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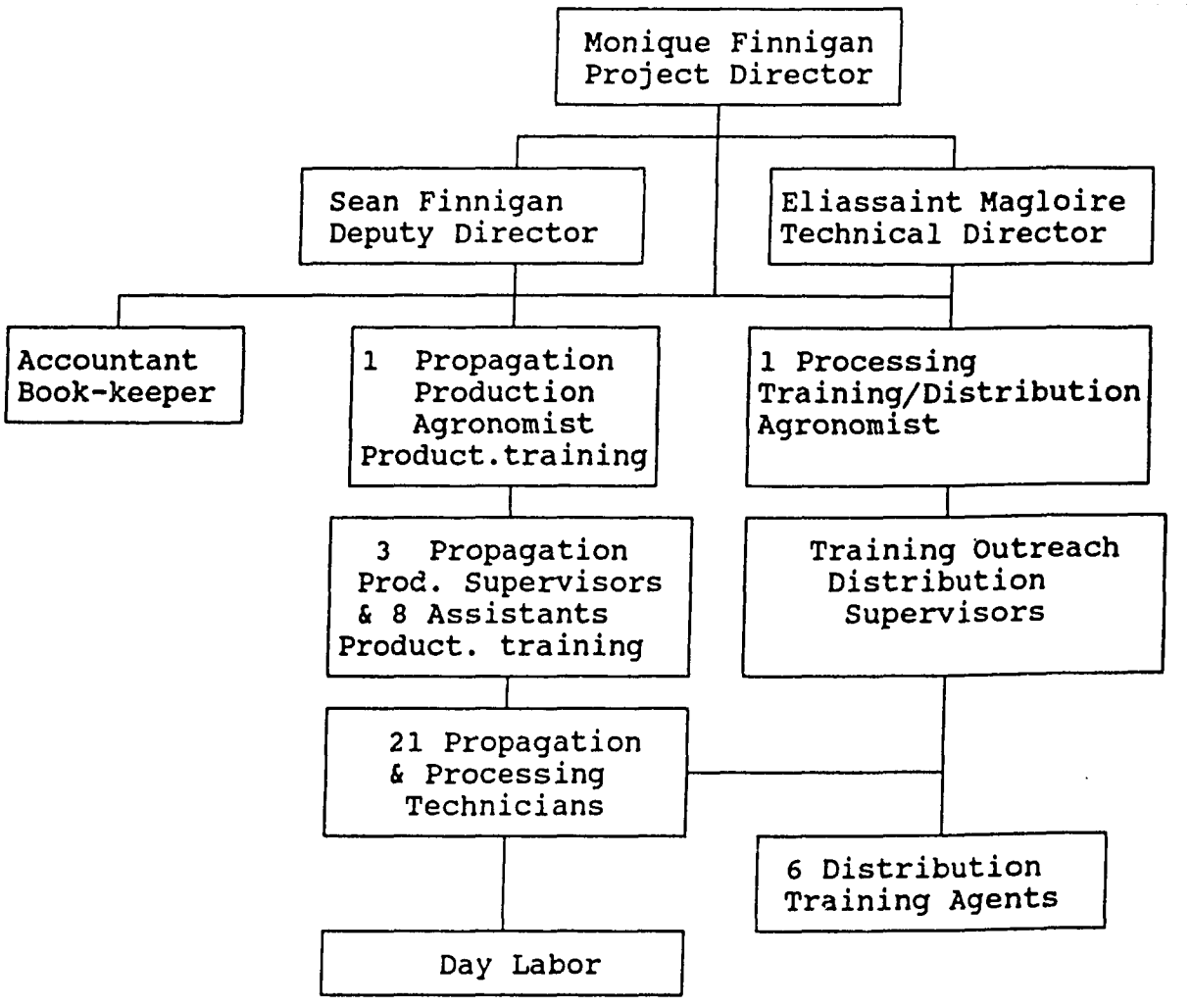
Project Organization

Annex III - ORE Seed Program Organigram



Allocation of Activities:

	Training	Basic Seed	Commercial Seed
Prop. Agronomist:	35%	35%	30%
Prop. Sup/& Assistants:	25%	25%	50%
Propagation & Processing Agents:		50%	50%
Day Labor:		100%	
Proc. & Training Agronomist:	25%	25%	50%
Training/Distr. Sup/& Assistants:	50%		50%
Training/Distr. Agents:	50%		50%

NB. During Phase one (first 18 months) commercial seeds production will be covered by project funds, thereafter commercial seed production costs will be met through seed sales.

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The Administration

The key administration personnel are as follows:

Project Director:
scope of work - overall project supervision; overall supervision of accounting and day-to-day budgeting; inputs into workplans, report and overall planning; coordination of seed distribution activities; supervision of personnel contracts and financial planning and coordination of procurement requirements and storage of supplies.

Deputy Director & Training Coordinator :
scope of work - production of training materials (video, photographic and written) and coordination of training activities; assistance in overall project supervision; workplan production; report writing; overall planning and strategy; creation and maintenance of databases for accounting, monitoring and reporting; coordination and supervision of seed facility building expansion.

Accountant:
scope of work - responsible to the Director for all accounting activities relating to the seed program.

Technical Director:
scope of work - technical supervision of all research, breeding, multiplication and post-harvest handling of seeds; supervision of agronomists and multiplication and distribution teams; giving training seminars and technical supervision of training materials.

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ORE Seed Production Background

Technical Director:
Eliassaint Magloire, MS in Agriculture has been the Director of the Seed Production program at ORE since 1987. His background is as follows:

1987 - 1991: Member of the Board and Technical Director at ORE, Camp Perrin, Haiti. Director of the ORE Crop Improvement Program (Seeds).

1985 - 1987: Master of Science Degree in Agronomy (Plant Breeding) at the University of Florida, Gainesville, Florida (Scholarship granted by CIMMYT)

1981 - 1984: Director of the Seed Multiplication Program: Basic and commercial seeds (maize, sorghum, peanuts, beans) at the Levy Farm Experimental Station, Les Cayes, Haiti. Research in the farmers' field and production systems in the MARNDR/CIMMYT FSR/E Program, Les Cayes, Haiti.

1980 - 1981: Training in corn production systems at the CIMMYT International Training Center, Mexico.

1975 - 1979: Bachelor of Science Degree in Agronomy at the Faculty of Agronomy and Veterinary Medecine, Damien, Haiti.

The Origins of the ORE Seed Production Program:

In 1987 Eliassaint Magloire conducted a survey of the farming systems in the Macaya area prior to the start-up of the TWMP project. The survey revealed the farmers' need for improved high quality seeds to replace the traditional poor quality grain in use. He began work in 1988 on the selection and maintenance of germplasm of corn and beans. Seed production begun the same year. The program has been continued and expanded, accompanied by an on-going breeding program.

Production Capacity:

By 1990 the program involved 15 propagation technicians and 200 multipliers of commercial seeds. PST budget restricted production to 100 tons of seeds although the potential given the equipment and qualified personnel was 200 tons a year. The purchase of additional equipment in 1991 from CIAT, Columbia (following a training Seminar attended by Eliassaint Magloire and Monique Finnigan), increased the production capacity to an potential 400 tons per annum.

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ORE Seed Project

For illustrative purposes only

Projection of Revenues and Expenses

Items	Month 1 Oct	Month 2 Nov	Month 3 Dec	Month 4 Jan 93	Month 5 Feb	Month 6 Mar	Month 7 Apr	Month 8 May	Month 9 Jun	Month 10 Jul	Month 11 Aug	Mo
Revenue												
Commercial Seed Sales	0	0	0	234,727	234,727	0	0	58,182	179,394	179,394	221,667	7
Expenses												
Salaries	177,975	177,975	177,975	177,975	177,975	177,975	177,975	177,975	177,975	177,975	177,975	17
Benefits	76,431	0	26,403	22,125	0	26,403	22,125	0	26,403	22,125	0	2
Travel	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	1
Equipment	1,338,095	0	0	0	0	0	0	0	0	0	0	
Commodities and Supplies	313,700	0	650,550	0	0	0	36,850	297,400	0	5,000	10,000	
Operating Expenses	166,892	33,892	33,892	33,892	33,892	33,892	33,892	33,892	33,892	33,892	33,892	3
Training	296,750	15,250	15,250	15,250	15,250	15,250	15,250	15,250	15,250	1,250	1,250	
Audit	0	0	0	0	0	0	0	0	0	0	0	
Evaluation	104,167	4,167	4,167	4,167	4,167	4,167	4,167	4,167	4,167	4,167	4,167	
Total Expenses	2,479,009	236,283	913,236	258,408	236,283	262,686	295,258	533,683	262,686	249,408	232,283	24
Excess of Revenue over Expenses	(2,479,009)	(236,283)	(913,236)	(23,681)	(1,556)	(262,686)	(295,258)	(475,502)	(83,292)	(70,014)	(10,617)	(17

Projection of Cash Flow

Items	Month 1 Oct	Month 2 Nov	Month 3 Dec	Month 4 Jan 93	Month 5 Feb	Month 6 Mar	Month 7 Apr	Month 8 May	Month 9 Jun	Month 10 Jul	Month 11 Aug	Mon
Cash In												
Seed Revenues	0	0	0	234,727	234,727	0	0	58,182	179,394	179,394	221,667	7
AID Grants	4,000,000	0	0	700,000	0	0	1,000,000	0	0	1,500,000	0	
Total Cash In	4,000,000	0	0	934,727	234,727	0	1,000,000	58,182	179,394	1,679,394	221,667	7
Cash Out												
Salaries/Benefits	254,406	177,975	204,378	200,100	177,975	204,378	200,100	177,975	204,378	200,100	177,975	204
Travel	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5
Equipment	1,338,095	0	0	0	0	0	0	0	0	0	0	
Commodities and Supplies	313,700	0	650,550	0	0	0	36,850	297,400	0	5,000	10,000	
Operating Expenses	166,892	33,892	33,892	33,892	33,892	33,892	33,892	33,892	33,892	33,892	33,892	33
Training	296,750	15,250	15,250	15,250	15,250	15,250	15,250	15,250	15,250	1,250	1,250	1
Audit	0	0	0	0	0	0	0	0	0	0	0	
Evaluation	104,167	4,167	4,167	4,167	4,167	4,167	4,167	4,167	4,167	4,167	4,167	4
Total Cash Out	2,479,009	236,283	913,236	258,408	236,283	262,686	295,258	533,683	262,686	249,408	232,283	248
Excess of Cash	1,520,991	(236,283)	(913,236)	676,319	(1,556)	(262,686)	704,742	(475,502)	(83,292)	1,429,986	(10,617)	(175
Cash Available	1,520,991	1,284,707	371,471	1,047,790	1,046,234	783,548	1,488,289	1,012,788	929,495	2,359,481	2,348,864	2,173

Projected Balance Sheet

Items	Period 1	Period 2	Period 3
Assets			
Cash	1,620,675	1,936,013	1,936,118
Total Assets	1,620,675	1,936,013	1,936,118
Liabilities			
Equity			
AID Grants	9,500,000	13,571,000	13,571,000
Accumulated Revenue	(7,879,325)	(11,634,987)	(11,634,882)
Total Liabilities	1,620,675	1,936,013	1,936,118

Commercial Seeds Component
Projection of Revenues & Expenses

(Gdes '000)	Period 1	Period 2	Period 3
Income			
Commercial Seed Sales	1,651	2,807	3,573
Expenses			
Salaries	1,074	1,143	789
Travel	9	9	0
Equipment	0	0	0
Commodities & Supplies	2,144	1,090	1,431
Operating Expenses	192	178	86
Training	0	0	0
Audit	0	0	0
Evaluation	0	100	0
Total Expenses	3,420	2,521	2,306
Revenue less Expenses	(1,769)	286	1,267

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Back-up information for Seed Proposal

Land rental

Rental of 11.85 ha @ Gdes1744.00/ha for 3 years,
1744.00 x 3 x 11.85 = 61,999.20 (62,000.00)

Total ha for basic & genetic seed, sweet potato cuttings, yam seeds: 27 ha

****

Ratio technician/multiplier: 1/25

Multiplication & Propagation technicians

11 technicians

Supervision, monitoring & training of commercial seed production (all):
- field monitoring and training of multipliers
- quality & quantity control, coordination of seed delivery to ORE facility

Supervision of basic seed production on ORE controlled plots (6)

Assistants for field training sessions for visiting trainees (NGO, Producer group, farmers) (all)

Supervision of post-harvest processing of basic & commercial seeds (3)

21 laborers

Basic seed field production and post harvest processing of basic & commercial seeds.

Training & Distribution technicians

10 technicians

Supervision & coordination of Bean seed maintenance training program, soil fertility & soil conservation techniques program:
- training of farmer-user for bean seed selection & maintenance,
- demonstration of seed use, improved planting techniques, soil fertility & soil coservation techniques,

Supervision & coordination of seed distribution in ORE zones.

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Training program & schedule

Corn seed & Bean seed production

2 sessions of 3 weeks each

1st session: Bean seed production, October-January season
2nd session: Corn seed production, February-June season

Participants for each sessions:

15 visiting technicians,
15 ORE technicians,
30 farmer-multipliers

1st week:

- General introduction to seed production,
- Field training on multipliers fields during soil preparation, planting.

2nd week:

- Review of 1st week, presentation of next field activities,
- field training on same plots during flowering for rogging & field selection.

3rd week:

- review of first 2 weeks, presentation of next field activities,
- pre-harvest field control, harvest, post-harvest processing & storage.

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Training Program & Schedule

Bean seed field selection & maintenance program

Improved production techniques

Soil conservation soil fertility improvement techniques

2 sessions of 3 weeks each and monitoring visits of fields and storage facilities

Participants: 145 farmers

1st session (February-April season): 100 farmers

2nd session (July-September season): 45 farmers

1st week:

- Improved soil preparation techniques to restore/maintain soil fertility and avoid soil loss,
- Improved planting techniques,

2nd week:

- field selection at flowering time (rogging)

3rd week:

- pre-harvest field control, criteria for best harvest time,
- harvest, post harvest handling and storage of selected stock

Monitoring visits for storage

BEST AVAILABLE DOCUMENT

[illegible] PROMOTION PROPOSAL

FOR BUDGET

FINANCIAL SUMMARY

Period: October 1st 1995 - September 30th 1996

EXCH RATE- 10.00 :1

	YEAR ONE		YEAR TWO		YEAR THREE		TOTAL THREE YEARS		TOTAL EXPRESSED
	COURDES	US $	COURDES	US $	COURDES	US $	COURDES	US $	IN US $
1 SALARIES	2065603	$35.850	1938546	$37.830	1540838	$39.929	5405007	113609	$654.109
2 TRAVEL	60000	$0	60000	$0	30000	$0	150000	0	$15.000
3 NON- EXPENDABLE EQUIPMENT	310000	$111.010	0	$2.500	0	$0	310000	113510	$144.510
4 COMMODITIES & SUPPLIES	10[illegible]1000	$30.170	1019360	$20.690	27809	$12.995	2108169	63855	$274.672
5 OPERATING EXPENSES	424200	$11.550	295033	$8.425	179926	$4.550	899159	24525	$114.441
6 TRAINING	163075	$15.800	160575	$9.500	160575	$2.500	484225	27800	$76.223
7 AUDIT	100000	$12.000	100000	$12.000	100000	$12.046	300000	36046	$66.046
8 EVALUATION	50000	$10.000	50000	$20.000	50000	$10.000	150000	40000	$55.000
PROJECT TOTALS-	4193898	$226.380	3523513	$110.945	2089148	$82.020	9806559	$419.344	$1.400.000

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AMMEX : - DEF SEED PRODUCTION PROJECT
YEAR ONE FINANCIAL SUMMARY
Period: October 1st 1994 - September 30th 1995

EXCH RATE: 16.00 =1

	--------YEAR ONE--------		
	SOURCES	US $	TOTAL
1 SALARIES	2025623.00	$35,850.00	$238,412.30
2 TRAVEL	60000.00	$0.00	$6,000.00
3. NON-EXPENDABLE EQUIPMENT	310000.00	$111,009.50	$142,009.50
4 COMMODITIES & SUPPLIES	1061000.00	$30,170.00	$136,270.00
5. OPERATING EXPENSES	424200.00	$11,550.00	$53,970.00
6 TRAINING	163075.00	$15,800.00	$32,107.50
7 AUDIT	100000.00	$12,000.00	$22,000.00
8 EVALUATION	50000.00	$10,000.00	$15,000.00
PROJECT TOTALS:	4193898.00	$226,379.50	$645,769.30

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Annex 1 - Detailed Budget YEAR ONE
ODR SEED PRODUCTION PROJECT
(For Illustrative Purposes Only)

# SALARIES	COURDES	US $	LOC M/RATE	US M/RATE
1 PROJECT DIRECTOR	260000.00	$0.00	20000.00	$0.00
1 DEPUTY DIRECTOR/TRAINING COORDINATOR	0.00	$33,000.00	0.00	$2,750.00
1 ACCOUNTANT	143000.00	$0.00	11000.00	$0.00
1 BOOKKEEPER	45500.00	$0.00	3500.00	$0.00
1 MESSENGER DAY	22750.00	$0.00	1750.00	$0.00
2 DRIVERS	83200.00	$0.00	3200.00	$0.00
1 WATCHMEN CP/TRAM	19500.00	$0.00	1500.00	$0.00
1 JANITOR	9750.00	$0.00	750.00	$0.00
1 GAL. MAINTENANCE OFFICER/R.GEDEON	78000.00	$0.00	6000.00	$0.00
1 ASS-MAINT.OFF./R. Beauboeuf	26000.00	$0.00	2000.00	$0.00
1 HEAD-MECHANIC/C.MEDINA	65000.00	$0.00	5000.00	$0.00
1 ASS.-MECHANIC/J.O.DORV-F.POLIFORT	9750.00	$0.00	750.00	$0.00
1 DRIVER-TRACTOR OPERATOR/S.MARSEY	19500.00	$0.00	1500.00	$0.00
1 WAREHOUSE MANAGER	45500.00	$0.00	3500.00	$0.00
1 WAREHOUSE ASS-MANAGER/E.DORCEUS	19500.00	$0.00	1500.00	$0.00
1 TECHNICAL DIRECTOR/E.MAGLOIRE	185900.00	$0.00	14300.00	$0.00
2 TECHNICAL ASS. AGRONOMISTS	97500.00	$0.00	3750.00	$0.00
3 MULTI.SUPER./JOSIL-JPIERRE-ALEXIS	117000.00	$0.00	3000.00	$0.00
2 ASS-MULTI 2 SUP /LEMIEUX/REMY	32500.00	$0.00	1250.00	$0.00
8 ASS-MULTI.3 SUP IAN/REG/MAR/ANO/OSC/	70200.00	$0.00	900.00	$0.00
8 MULTI. PERMANENT LABORERS/TEAM 1	93600.00	$0.00	900.00	$0.00
7 MULTI. PERMANENT LABORERS/TEAM 2	77350.00	$0.00	850.00	$0.00
6 MULTI. PERMANENT LABORERS/TEAM 3	50700.00	$0.00	850.00	$0.00
1 MULTI. DAY LABOR/TEAM	39000.00	$0.00	3000.00	$0.00
1 TRAINING-MULTI-DISTRIBUT - SUP	52000.00	$0.00	2000.00	$0.00
2 TRAINING-MULTI-DISTRIBUT - SUP	39000.00	$0.00	1500.00	$0.00
6 TRAINING - DISTRIBUT. AGENTS	58500.00	$0.00	750.00	$0.00
1 MAINTENANCE DAY LABOR	45500.00	$0.00	0.00	$0.00
1 MEDICAL INSURANCE	60000.00	$2,850.00	0.00	$0.00
OMA	105617.00	$0.00	0.00	$0.00
OMATMA	54306.00	$0.00	0.00	$0.00

# TRAVEL	COURDES	US $	LOC M/RATE	US M/RATE
INTERNATIONAL TRAVEL & PERDIEM	0.00	$0.00	0.00	$0.00
LOCAL TRAVEL & PERDIEM	60000.00	$0.00	0.00	$0.00

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NON EXPENDABLE EQUIPMENT	COURDES:	US $:	LOC M/RATE	US M/RATE
1 TRACTORS	0.00	$38,200.00		
2 TRAILERS	30000.00	$0.00		
1 GENERATOR	160000.00	$0.00		
1 FUEL STORAGE TANK	20000.00	$0.00		
3 DRYERS	0.00	$3,980.00		
1 CORN SHELLER	0.00	$7,150.00		
1 SEED TREATER-MIXER	0.00	$8,600.00		
4 PALLET TRUCKS	0.00	$1,628.00		
1 BLOWER	0.00	$770.00		
1 HYGROTHERMOGRAPH	0.00	$660.00		
1 PORTABLE BEAM SCALE	0.00	$566.50		
1 DEHUMIDIFIER	0.00	$1,650.00		
1 SEWING MACHINE	0.00	$825.00		
1 COLD ROOM/FRIDGE	0.00	$2,200.00		
1 EXP POST-HARVEST HANDLING FACILITY	0.00	$21,700.00		
1 SEED DRYING AREA / SILO STORAGE	0.00	$24,000.00		
3 STORAGE SILOS	100000.00	$0.00		
1 PHOTOCOPIER	0.00	$1,100.00		

4. COMMODITIES & SUPPLIES	COURDES:	US $:	LOC M/RATE	US M/RATE
FERTILIZER	0.00	$7,500.00	0.00	$0.00
INSECTICIDES	0.00	$6,450.00	0.00	$0.00
HERBICIDES	0.00	$2,050.00	0.00	$0.00
BASEBL BAGS	0.00	$120.00	0.00	$0.00
HARVEST BAGS/BASKETS/TARPS	25000.00	$2,000.00	0.00	$0.00
REFRIGER SEED STORAGE BAGS	0.00	$500.00	0.00	$0.00
COMMERCIAL SEED STORAGE BAGS	0.00	$4,500.00	0.00	$0.00
TESTING LAB SUPPLIES	0.00	$300.00	0.00	$0.00
THREADS/LABELS	0.00	$1,250.00	0.00	$0.00
TOOLS	10000.00	$1,000.00	0.00	$0.00
PROTECTION EQ (MASKS/GLOVES/BOOTS)	0.00	$1,500.00	0.00	$0.00
MISCELLANEOUS(STORAGE CLEANING SUPPL	12000.00	$0.00	0.00	$0.00
OFFICE SUPPLIES	15000.00	$3,000.00	0.00	$0.00
MAINTENANCE SUPPLIES	5000.00	$0.00	0.00	$0.00
200 CORN SEED (MULTIPLIER COST)	594000.00	$0.00	2970.00	$0.00
20 BEAN SEED (MULTIPLIER COST)	147400.00	$0.00	7370.00	$0.00
80 SORGHUM SEED (MULTIPLIER COST)	237600.00	$0.00	2970.00	$0.00
2 SWEET POTATO SEED (MULTIPLIER COST)	10000.00	$0.00	5000.00	$0.00
YAM SEED	5000.00	$0.00	0.00	$0.00
		$0.00	0.00	$0.00

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5 OPERATING EXPENSES	COURIERS:	US $:	LOC M/RATE	US M/RATE
LOCAL/INTERNATIONAL FREIGHT	6000.00	$2,500.00	0.00	$0.00
TELEPHONE/FAX	30000.00	$2,400.00	2500.00	$0.00
POS/FEDEX/UPS/GAL COURIERS	3000.00	$2,400.00	250.00	$200.00
ELECTRICITY	80000.00	$0.00	5000.00	$0.00
WATER	1200.00	$0.00	100.00	$0.00
LAND RENTAL	60000.00	$0.00	0.00	$0.00
EQUIPMENT REPAIR	10000.00	$2,500.00	0.00	$0.00
BUILDING & FACILITIES MAINTENANCE	50000.00	$0.00	0.00	$0.00
VEHICULES MAINTENANCE	100000.00	$0.00	0.00	$0.00
FUEL	60000.00	$0.00	0.00	$0.00
SUBSCRIPTION/DOCUMENTATION	0.00	$1,500.00	0.00	$0.00
VEHICULE INSURANCE	40000.00	$0.00	0.00	$0.00
BANK CHARGES	2000.00	$250.00	0.00	$0.00
OTHER	0.00	$0.00	0.00	$0.00

6 TRAINING	COURIERS:	US $:	LOC M/RATE	US M/RATE
TRAINING MATERIALS(VIDEO/SLIDE/BOOK)	2500.00	$12,000.00	0.00	$0.00
TRAINING SEMINARS IN HOUSE	121500.00	$0.00	0.00	$0.00
TRAINING SEMINARS OUTREACH	31575.00	$0.00	0.00	$0.00
TRAINING EQUIPMENT	0.00	$1,800.00	0.00	$0.00
TRAINING SUPPLIES	7500.00	$2,000.00	0.00	$0.00
OVERSEAS TRAINING	0.00	$12,140.00	0.00	$0.00

7 AUDIT	COURIERS:	US $:	LOC M/RATE	US M/RATE
	100000.00	$12,000.00		

8 EVALUATION	COURIERS:	US $:	LOC M/RATE	US M/RATE
LOCAL EVALUATION	50000.00	$0.00		
INT EVALUATION	0.00	$0.00		
FINANCIAL EVALUATION/CONSULT.	0.00	$10,000.00		

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YEAR TWO BUDGET

FINANCIAL SUMMARY

Period: October 1st 1993 September 30th 1994

EXCH RATE: 10.00 =1

	-------YEAR TWO--------		
	COMBODS	US $	TOTAL
1 SALARIES	1838545.74	$37,830.00	$221,684.57
2. TRAVEL	60000.00	$0.00	$6,000.00
3. NON-EXPENDABLE EQUIPMENT	0.00	$2,500.00	$2,500.00
4 COMMODITIES & SUPPLIES	1019360.00	$20,690.00	$122,626.00
5 OPERATING EXPENSES	295032.50	$8,425.00	$37,928.25
6 TRAINING	160575.00	$9,500.00	$25,557.50
7. AUDIT	100000.00	$12,000.00	$22,000.00
8 EVALUATION	50000.00	$20,000.00	$25,000.00
PROJECT TOTALS:	3523513.24	$110,945.00	$463,296.32

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Annex 1 . Detailed Budget YEAR TWO
USE SEED PRODUCTION PROJECT
(For Illustrative Purposes Only)

1 SALARIES	COURDES:	US $:	LOC M/RATE	US M/RATE
1 PROJECT DIRECTOR	275600.00	$0.00	20000.00	$0.00
1 DEPUTY DIRECTOR TRAINING COORDINATOR	0.00	$34,980.00	0.00	$2,750.00
1 ACCOUNTANT	151580.00	$0.00	11000.00	$0.00
1 BOOKKEEPER	48230.00	$0.00	3500.00	$0.00
1 MESSENGER PAF	24115.00	$0.00	1750.00	$0.00
2 DRIVERS	67935.40	$0.00	2465.00	$0.00
1 WATCHMEN CP/TRAM	15915.90	$0.00	1155.00	$0.00
1 JANITOR	7992.40	$0.00	580.00	$0.00
1 GAL. MAINTENANCE OFFCER/B.GEDRON	63663.60	$0.00	4620.00	$0.00
1 ASS-MAINT.OFF./B Beauboeuf	21221.20	$0.00	1540.00	$0.00
1 HEAD-MECHANIC/C MEDINA	53053.00	$0.00	3850.00	$0.00
1 ASS -MECHANIC/J.O.DORV-F.POLIFORT	7992.40	$0.00	580.00	$0.00
1 DRIVER-TRACTOR OPERATOR/S.MARSEY	15915.90	$0.00	1155.00	$0.00
1 WAREHOUSE MANAGER	37137.10	$0.00	2695.00	$0.00
1 WAREHOUSE ASS-MANAGER/E.DORCEUS	15915.90	$0.00	1155.00	$0.00
1 TECHNICAL DIRECTOR/E.MAGLOIRE	197054.00	$0.00	14300.00	$0.00
2 TECHNICAL ASS. AGRONOMISTS	79510.60	$0.00	2885.00	$0.00
3 MULTI SUPER./JOSIL-JPIERRE-ALEXIS	95412.72	$0.00	2308.00	$0.00
2 ASS-MULTI 2 SUP /LEMIEUX/REMY	26485.18	$0.00	961.00	$0.00
6 ASS-MULTI 3 SUP LOU/REG/MAR/ANO/OSC/	66144.00	$0.00	800.00	$0.00
8 MULTI PERMANENT LABORERS/TRAM 1	77168.00	$0.00	700.00	$0.00
7 MULTI PERMANENT LABORERS/TRAM 2	63181.30	$0.00	655.00	$0.00
6 MULTI PERMANENT LABORERS/TRAM 3	41340.00	$0.00	500.00	$0.00
1 MULTI DAY LABOR/TRAM	41340.00	$0.00	3000.00	$0.00
2 TRAINING-MULTI-DISTRIBUT - SUP	42442.40	$0.00	1540.00	$0.00
2 TRAINING-MULTI-DISTRIBUT - SUP	31831.80	$0.00	1155.00	$0.00
6 TRAINING - DISTRIBUT AGENTS	52501.80	$0.00	635.00	$0.00
1 MAINTENANCE DAY LABOR	25500.00	$0.00	0.00	$0.00
1 MEDICAL INSURANCE	45000.00	$2,850.00	0.00	$0.00
OMA	97245.77	$0.00	0.00	$0.00
OPATMA	50120.39	$0.00	0.00	$0.00

2. TRAVEL	COURDES:	US $:	LOC M/RATE	US M/RATE
INTERNATIONAL TRAVEL & PERDIEM	0.00	$0.00	0.00	$0.00
LOCAL TRAVEL & PERDIEM	60000.00	$0.00	0.00	$0.00

3. NON EXPENDABLE EQUIPMENT	COURDES:	US $:	LOC M/RATE	US M/RATE
1 TRACTORS	0.00	$0.00		
2 TRAILERS	0.00	$0.00		
1 CONVEYATOR	0.00	$0.00		
1 FUEL STORAGE TANK	0.00	$0.00		
2 DRYERS	0.00	$0.00		
1 CORN SHELLER	0.00	$0.00		
1 SEED TREATER-MIXER	0.00	$0.00		
4 PALLET TRUCKS	0.00	$0.00		

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1 BLOWER	0.00	$0.00	
1 HYGROTHERMOGRAPH	0.00	$0.00	
1 PORTABLE BEAM SCALE	0.00	$0.00	
1 DEHUMIDIFIER	0.00	$0.00	
1 SEWING MACHINE	0.00	$0.00	
1 COLD ROOM-FRIDGE	0.00	$0.00	
1 RVD POST-HARVEST HANDLING FACILITY	0.00	$0.00	
1 SEED DRYING AREA / SILO STORAGE	0.00	$0.00	
2 STORAGE SILOS	0.00	$0.00	
1 REPLACEMENTS	0.00	$2,500.00	

4. COMMODITIES & SUPPLIES	COURDES:	US $:	LOC M/RATE	US M/RATE
FERTILIZER	0.00	$3,750.00	0.00	$0.00
INSECTICIDES	0.00	$6,450.00	0.00	$0.00
FUNGICIDES	0.00	$2,050.00	0.00	$0.00
TASSEL BAGS	0.00	$90.00	0.00	$0.00
HARVEST BAGS/BASKETS/TARPS	13250.00	$1,000.00	0.00	$0.00
BREEDER SEED STORAGE BAGS	0.00	$500.00	0.00	$0.00
COMMERCIAL SEED STORAGE BAGS	0.00	$2,250.00	0.00	$0.00
TESTING LAB SUPPLIES	0.00	$200.00	0.00	$0.00
THREADS/LABELS	0.00	$900.00	0.00	$0.00
TOOLS	5300.00	$500.00	0.00	$0.00
PROTECTION EQ (MASKS/GLOVES/BOOTS)	0.00	$750.00	0.00	$0.00
MISCELLANEOUS(STORAGE CLEANING)	1325.00	$0.00	0.00	$0.00
OFFICE SUPPLIES	11925.00	$2,250.00	0.00	$0.00
MAINTENANCE SUPPLIES	1060.00	$0.00	0.00	$0.00
[illegible] CORN SEED (MULTIPLIER COST)	594000.00	$0.00	2970.00	$0.00
[illegible] BEAN SEED (MULTIPLIER COST)	147400.00	$0.00	7370.00	$0.00
[illegible] SORGHUM SEED (MULTIPLIER COST)	237600.00	$0.00	2970.00	$0.00
1 SWEET POTATO SEED (MULTIPLIER COST)	5000.00	$0.00	5000.00	$0.00
YAM SEED	2500.00	$0.00	0.00	$0.00
		$0.00	0.00	$0.00

5. OPERATING EXPENSES	COURDES:	US $:	LOC M/RATE	US M/RATE
LOCAL-INTERNATIONAL FREIGHT	3450.00	$1,250.00	0.00	$0.00
TELEPHONE/FAX	25875.00	$1,800.00	2500.00	$0.00
DHL/FEDEX/UPS/GAL COURIER	1437.50	$1,800.00	250.00	$200.00
ELECTRICITY	51750.00	$0.00	5000.00	$0.00
WATER	920.00	$0.00	100.00	$0.00
LAND RENTAL	0.00	$0.00	0.00	$0.00
EQUIPMENT REPAIR	8625.00	$1,875.00	0.00	$0.00
BUILDING & FACILITIES MAINTENANCE	28750.00	$0.00	0.00	$0.00
VEHICULRS MAINTENANCE	86250.00	$0.00	0.00	$0.00
FUEL	51750.00	$0.00	0.00	$0.00
SUBSCRIPTION/DOCUMENTATION	0.00	$1,500.00	0.00	$0.00
VEHICULE INSURANCE	34500.00	$0.00	0.00	$0.00
BANK CHARGES	1725.00	$200.00	0.00	$0.00
OTHER	0.00	$0.00	0.00	$0.00

6. TRAINING	COURDES:	US $:	LOC M/RATE	US M/RATE

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TRAINING MATERIALS/VIDEO-SLIDE/BOOKS	0.00	$8,000.00	0.00	$0.00
TRAINING SEMINARS IN HOUSE	121500.00	$0.00	0.00	$0.00
TRAINING SEMINARS OUTREACH	31575.00	$0.00	0.00	$0.00
TRAINING EQUIPMENT	0.00	$500.00	0.00	$0.00
TRAINING SUPPLIES	7500.00	$1,000.00	0.00	$0.00
SUBSIDIES TRAINING	0.00	$0.00	0.00	$0.00

2 AUDIT	DOLLARS:	US $:	LOC M/DATE	US M/DATE
	100000.00	$12,000.00		

3 EVALUATION	DOLLARS:	US $:	LOC M/DATE	US M/DATE
LOCAL EVALUATION	50000.00	$0.00		
INT EVALUATION	0.00	$10,000.00		
FINANCIAL EVALUATION/CONSULT	0.00	$10,000.00		

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YEAR THREE

FINANCIAL SUMMARY

Period: October 1st 1994 September 30th 1995

RYCW RATE: 10.00 %

	------YEAR THREE--------		
	GOURDES	US $	TOTAL
1. SALARIES	1540838.00	$39,926.80	$194,012.60
2. TRAVEL	30000.00	$0.00	$3,000.00
3. NON-EXPENDABLE EQUIPMENT	0.00	$0.00	$0.00
4. COMMODITIES & SUPPLIES	27809.10	$12,995.00	$15,775.91
5. OPERATING EXPENSES	179926.13	$4,550.00	$22,542.61
6. TRAINING	160575.00	$2,500.00	$18,557.50
7. AUDIT	100000.00	$12,046.00	$22,046.00
8. EVALUATION	50000.00	$10,000.00	$15,000.00
PROJECT TOTALS:	2089148.22	$82,019.80	$290,934.62

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Annex 1 - Detailed Budget YEAR THREE
CE2 SEED PRODUCTION PROJECT
(For Illustrative Purposes Only)

1 SALARIES	GOURDES:	US $:	LOC M/RATE	US M/RATE
1 PROJECT DIRECTOR	296136.00	$0.00	20000.00	$0.00
1 DEPUTY DIRECTOR TRAINING COORDINATOR	0.00	$37,078.80	0.00	$2,750.00
1 ACCOUNTANT	160674.80	$0.00	11000.00	$0.00
1 BOOKKEEPER	51123.80	$0.00	3500.00	$0.00
1 MESSENGER BAD	25561.90	$0.00	1750.00	$0.00
2 DRIVERS	31258.55	$0.00	1070.00	$0.00
1 WATCHMEN CP/TEAM	10955.10	$0.00	750.00	$0.00
1 JANITOR	5477.55	$0.00	375.00	$0.00
1 GAL. MAINTENANCE OFFICER/B.CEDRON	43820.40	$0.00	3000.00	$0.00
1 ASS MAINT.OFF /B. Beauboeuf	14606.80	$0.00	1000.00	$0.00
1 HEAD-MECHANIC/C.MEDINA	36517.00	$0.00	2500.00	$0.00
1 ASS.-MECHANIC/J.O.DORV-F.POLIFORT	5477.55	$0.00	375.00	$0.00
1 DRIVER-TRACTOR OPERATOR/S.MARSEY	7303.40	$0.00	500.00	$0.00
1 WAREHOUSE MANAGER	0.00	$0.00	0.00	$0.00
1 WAREHOUSE ASS-MANAGER/R.DORCEUS	0.00	$0.00	0.00	$0.00
1 TECHNICAL DIRECTOR/E.MAGLOIRE	208877.24	$0.00	14300.00	$0.00
2 TECHNICAL ASS AGRONOMISTS	54775.50	$0.00	1875.00	$0.00
3 MULTI.SUPER./JOSIL-JPIEL.E-ALEXIS	65730.60	$0.00	1500.00	$0.00
2 ASS-MULTI.2 SUP /LEMIRUY/RENY	20449.52	$0.00	700.00	$0.00
6 ASS-MULTI.3 SUP.IOU/REG/MAR/ANO/OSC/	59157.54	$0.00	675.00	$0.00
8 MULTI. PERMANENT LABORERS/TEAM 1	52584.48	$0.00	450.00	$0.00
7 MULTI. PERMANENT LABORERS/TEAM 2	43455.23	$0.00	425.00	$0.00
6 MULTI PERMANENT LABORERS/TEAM 3	28483.26	$0.00	325.00	$0.00
1 MULTI. DAY LABOR/TEAM	43820.40	$0.00	3000.00	$0.00
2 TRAINING-MULTI DISTRIBUT. SUP	29213.60	$0.00	1000.00	$0.00
2 TRAINING-MULTI-DISTRIBUT. - SUP	21910.20	$0.00	750.00	$0.00
8 TRAINING - DISTRIBUT. AGENTS	43820.40	$0.00	500.00	$0.00
1 MEDICAL INSURANCE	60000.00	$2,850.00	0.00	$0.00
OMA	81431.45	$0.00	0.00	$0.00
OPAPWI	42215.72	$0.00	0.00	$0.00

2 TRAVEL	GOURDES:	US $:	LOC M/RATE	US M/RATE
INTERNATIONAL TRAVEL & PERDIEM	0.00	$0.00	0.00	$0.00
LOCAL TRAVEL & PERDIEM	30000.00	$0.00	0.00	$0.00

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3 NON EXPENDABLE EQUIPMENT	SOURCES:	US $:	LOC M/RATE	US M/RATE
1 TRACTORS	0.00	$0.00		
2 TRAILERS	0.00	$0.00		
1 GENERATOR	0.00	$0.00		
1 FUEL STORAGE TANK	0.00	$0.00		
2 DRYERS	0.00	$0.00		
1 CORN SHELLER	0.00	$0.00		
1 SEED TREATER MIXER	0.00	$0.00		
4 PALLET TRUCKS	0.00	$0.00		
1 BLOWER	0.00	$0.00		
1 HYGROTHERMOGRAPH	0.00	$0.00		
1 PORTABLE BEAM SCALE	0.00	$0.00		
1 DEHUMIDIFIER	0.00	$0.00		
1 SEWING MACHINE	0.00	$0.00		
1 COLD ROOM/FRIDGE	0.00	$0.00		
1 EXP POST-HARVEST HANDLING FACILITY	0.00	$0.00		
1 SEED DRYING AREA / SILO STORAGE	0.00	$0.00		
3 STORAGE SILOS	0.00	$0.00		
1 PHOTOCOPIER	0.00	$0.00		

4 COMMODITIES & SUPPLIES	SOURCES:	US $:	LOC M/RATE	US M/RATE
FERTILIZER	0.00	$3,750.00	0.00	$0.00
INSECTICIDES	0.00	$1,500.00	0.00	$0.00
FUNGICIDES	0.00	$1,300.00	0.00	$0.00
TASSEL BAGS	0.00	$120.00	0.00	$0.00
HARVEST BAGS/BASKETS/TARPS	14045.00	$1,000.00	0.00	$0.00
BREEDER SEED STORAGE BAGS	0.00	$500.00	0.00	$0.00
COMMERCIAL SEED STORAGE BAGS	0.00	$0.00	0.00	$0.00
TESTING LAB SUPPLIES	0.00	$150.00	0.00	$0.00
TUBERS/BARRELS	0.00	$425.00	0.00	$0.00
TOOLS	5618.00	$500.00	0.00	$0.00
PROTECTION EQ.(MASKS/GLOVES/BOOTS)	0.00	$750.00	0.00	$0.00
MISCELLANEOUS(STORAGE CLEANING)	1404.50	$0.00	0.00	$0.00
OFFICE SUPPLIES	5618.00	$3,000.00	0.00	$0.00
MAINTENANCE SUPPLIES	1123.60	$0.00	0.00	$0.00
200 CORN SEED (MULTIPLIER COST)	0.00	$0.00	0.00	$0.00
20 BEAN SEED (MULTIPLIER COST)	0.00	$0.00	0.00	$0.00
80 SORGHUM SEED (MULTIPLIER COST)	0.00	$0.00	0.00	$0.00
2 SWEET POTATO SEED (MULTIPLIER COST)	0.00	$0.00	0.00	$0.00
YAM SEED	0.00	$0.00	0.00	$0.00
		$0.00	0.00	$0.00

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[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	$0.00	[illegible]	$0.00
[illegible]	10837.50	$300.00	2500.00	$0.00
[illegible]	[illegible]	$300.00	250.00	$700.00
[illegible]	26450.00	$0.00	5000.00	$0.00
[illegible]	[illegible]	$0.00	150.00	$0.00
[illegible]	0.00	$0.00	0.00	$0.00
[illegible]	[illegible]	$1,000.00	0.00	$0.00
BUILDING & FACILITIES MAINTENANCE	16531.00	$0.00	0.00	$0.00
[illegible] MAINTENANCE	52900.00	$0.00	0.00	$0.00
DUES	26450.00	$0.00	0.00	$0.00
SUBSCRIPTION/DOCUMENTATION	0.00	$1,500.00	0.00	$0.00
VEHICLE INSURANCE	10837.50	$0.00	0.00	$0.00
BANK CHARGES	991.88	$250.00	0.00	$0.00
OTHERS	0.00	$0.00	0.00	$0.00

6 TRAINING	COURSES:	US $:	IOC M/DATE	US M/DATE
TRAINING MATERIALS/VIDEO/SLIDE BOOKS	0.00	$1,500.00	0.00	$0.00
TRAINING SEMINARS IN HOTELS	101500.00	$0.00	0.00	$0.00
TRAINING SEMINARS CONFERENCE	31575.00	$0.00	0.00	$0.00
TRAINING EQUIPMENT	0.00	$0.00	0.00	$0.00
TRAINING SUPPORTS	2500.00	$1,000.00	0.00	$0.00
OVERSEAS TRAINING	0.00	$0.00	0.00	$0.00

7 [illegible]	COURSES:	US $:	IOC M/DATE	US M/DATE
	100000.00	$12,046.00		

8 EVALUATION	COURSES:	US $:	IOC M/DATE	US M/DATE
LOCAL EVALUATION	50000.00	$0.00		
IOC EVALUATION	0.00	$10,000.00		
FINANCIAL EVALUATION/CONSULT	0.00	$0.00		

ORE SELD PROPOSAL

Back-up information for Detailed Budget
(For Illustrative Purposes Only)

1.- SALARY

Medical Insurance:	(tariffs are based by insurance company according to salary levels): .- 29 employees @ Gdes 900.00/yr each .- 22 employees @ Gdes 950.00/yr each .- 3 employees @ Gdes 4,334.00/yr each .- 2 employees @ US$ 1,425.00/yr each
ONA:	All employees, @ 5% for 20% of total monthly payroll @ 6% for 80% of total monthly payroll
OFATMA:	All employees (including day labor) @ 3% for 13 months payroll

2.- TRAVEL

International Travel:	see Overseas Training & corrections on budget;
Local Travel & Perdiem:	240 days @ Gdes 250.00/day max. (30 days/yr for about 8 employees) for vehicle repairs, procurement, meetings with AID, training coordination and production of training materials.

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3.- NON EXPENDABLE EQUIPMENT

Generator: Specifications for generator should read 30 KW. instead of 20 KW. Generator size is based on an evaluation consultation made by a professional electrician specialized in generator systems (Hans Margron). Proformas:
Haitian Tractor, model ONAN US $15,354.00
SONACO, model Lister Gdes 167,700.00

Tractor: US $38,200. The following local suppliers (Haitian Tractor, Kubota, Fequière, Darboucos SA) have been unable to supply pro forma quotations and have no machines in stock.

Budget for tractor is based on Haitian Tractor quotation:

John Deere 60 HP	$28,000
reversible plough	$3,500
silloneuse	$2,500
hearse	$4,200

Fuel storage:
1,365 gallon capacity diesel fuel storage tank to supply 3 months of fuel (average 450 gallons a month) for the following on-going requirements: 1 truck, 1 tractor, 3 pick-up, 1 generator

The fuel tank will allow fuel to be delivered by tanker directly from Les Cayes rather than filling and emptying 55 gallon drums. It will also provide a 2 month reserve against shortages. *Shortages will inevitably occur during the 3 year period.* Lack of fuel will halt seed processing activities.

Specifications:

.- Dryer, (CIAT model): 1 pressure blower connected to 1 m3 concrete dryer chamber; (seed dryer)

.- Corn sheller, 2 HP / 220V / 50 Hz - 1 PH / 1 ton/hr;

.- pallet truck, 2 wheel deep-frame model, 1,000 lb capacity, (to move bagged seed for storage, delivery)

.- cleaning blower, 1 1/2 HP / 230V 50/60Hz; (post harvest & storage facilities cleaning)

.- sewing machine/portable bag closer, 110V / 50/60Hz; (seed bag closer)

.- photocopier, canon PC-II, (copies of accounting documentation, reports)

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4.- COMMODITIES

Harvest commodities: .- 4600 bags @ Gdes 5 - 23,000
.- 100 baskets @ Gdes 20 - 2,000
.- 4 tarps (20'x30') @ US $500 - $2,000

Agricultural tools: .- 25 of each: hoes, machetes, rakes, brouettes, scythes, etc. local in Gdes
.-shovels, scoops, professional flashlight etc. - US $

Fertilizers: .- for all basic seed production and (11%) commercial seeds:

for basic seed:

75 bags (50kg) Urea	@$19	$1,425
99 bags (50kg) 15-15-15	@$19	$1,881

for commercial seed:

140 bags (50kg) Urea	@$19	$2,660
80 bags (50kg) 15-15-15	@$19	$1,520

Total US $7,500

Insecticides/Fungicides:
Approved USAID pesticides for seed production and treatment:

2,150 lbs Insecticide (Malathion/Sevin)	@$3	$6,450
293 lbs Fungicide (Benlate/Dithane M45)	@$7	$2,050

5.- OPERATING EXPENSES

Electricity: .- average consumption of 6000 KW/month (1/2 yr low 2,000 KW, 1/2 yr high up to 10,000 KW/month).

Building & Facilities Maintenance:
.- maintenance of all seed processing equipment (as listed elsewhere). This is a seed processing factory.
.- new generator installation with new electrical wiring to fit security standard to protect generator and equipment;
.- plumbing, electrical, telephone, structural (roof, walls) repairs;
.- reinforcement of building security,

Vehicles maintenance: .- 1 dump truck, 3 pick-up trucks, 1 jeep, 1 tractor, 8 motorcycles;

Gal Insurance: Should read "Vehicles Insurance", for 3 pick-up trucks, 1 jeep.

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6.- TRAINING

Seminars In House:	.- 2 sessions (ORE & in the field) of 3 weeks and 60 participants, cost per session: Gdes 60,750.00;
Seminars Outreach:	.- 1 session (in the field) of 3 weeks and 100 participants, session cost: Gdes 13,500.00; .- 1 session of 3 weeks and 45 participants, session cost: Gdes 6,075.00; .- radio training programs Gdes 12,000.
Overseas training:	US $12,140.00

Computer Programming:
1 session on inventory & accounting/programming of 5 days and 1 participant, in Miami Florida, (with Service & Software Inc.), session cost:

ticket:	US $350.00
perdiem:	504.00
car rental:	250.00
documentation/software:	500.00
training fee:	1,000.00
Total:	US$ 2,604.00;

Seed Production:
1 session with CIAT/CIMMYT International Center on seed production of 2 weeks and 4 participants, session cost:

4 tickets:	US $3,000.00
perdiem:	4,200.00
(15 days/4 persons @$70 - in Int. Center).	
perdiem:	336.00
(1 day/4 persons @$84 transit in Miami).	
transportation:	400.00
documentation:	1,000.00
training fee:	600.00
Total:	US $9,536.00

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Training Materials: $12,000

2 (20 minute) video films	$10,000
slide duplication 3 sets 250 slides @$2	$1,500
radio spot production	$500
local printing	G2,500

Training Equipment $2,000:

camera equipment	$600
audio equipment	$500
graphics & video software	$700

Training Supplies $2,000:

40 Professional video cassettes @$20	$800
10 Audio cassettes @$5	$50
100 rolls slide film @$8	$800
Miscellaneous	$350

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PD ABS-157

ACTION MEMORANDUM FOR THE ACTING MISSION DIRECTOR, USAID/HAITI

DATE: August 28, 1992

THROUGH: Gail Spence, PPS

FROM: Marc-Eddy Martin, ADO

SUBJECT: Seed Production and Multiplication Project 521-0245

I. ACTION: Your approval is requested for the Seed Production and Multiplication (521-0245) project, with total grant funding of $1.4 million over three years. Under the provisions of Section 533 of the FAA, Economic Support Funds will be obligated under a Cooperative Agreement with the Organization for the Rehabilitation of the Environment (ORE) to implant the Project.

II. DISCUSSION:

A. Background

A succession of climatic disasters and recent socioeconomic disturbances have reduced the supply of seeds for the major staple crops (corn, sorghum, beans, sweet potato cuttings) to an unprecedented low. The chronic lack of seeds and the depletion of farmers' reserves are seriously affecting production potential in most of the prime agricultural areas of the country. There is a risk that a downward trend may continue, unless seeds are made available during the forthcoming seasons. An increase in the supply of improved plant materials is vital to avoid further deterioration of the production potential of the southern region.

USAID/Haiti would like to respond to the country's emergency seed need by continuing support to ORE's effort to increase the availability of seeds to food producers. ORE proposes to meet some of the country's emergency seed need through its seed production and multiplication program in the South.

As a result of the coup on September 30, 1992, A.I.D. Development Assistance activities in Haiti were suspended, including all activities in the Mission's agricultural projects. ORE's Cooperative Agreement under the Targeted Watershed Management project was scheduled to end on March 31, 1992, but, under Section 617 authority, the agreement was extended to May 31, 1992, and extended again to September 30, 1992 under the Haiti Interim Program Plan. A.I.D./Washington and the Mission determined that seed production was an important element of Haiti's ongoing Humanitarian Assistance Program.

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As an implementing agency in the Targeted Watershed Management project, ORE has proven itself to be the most capable local NGO in Haiti for producing improved plant materials. As a result of its progress in developing new and improved seeds, there is an increasing number of farmers in the South who are willing to pay for these seeds. The proposed grant will allow ORE to continue assisting small farmers in the Southern region to increase their income through the use of improved seeds for cereals and root crops. In addition, the grant will cover ORE's cost of basic seeds production.

Currently, there are not enough basic seeds to satisfy the needs of small farmers for the upcoming agricultural seasons. Supporting basic seed production will help prevent the gradual deterioration of the varietal purity of the improved food crops introduced in Haiti recently under USAID-funded agricultural projects. The production and maintenance of basic seeds will serve not only the project needs but will also guarantee their future availability in the country on a sustainable basis. ORE is one of the few institutions in Haiti with the capability to produce and maintain varietal purity of basic seeds.

ORE's ongoing seed activity is inadequate to respond effectively to the increasingly serious problem of seed scarcity, so the organization has submitted an unsolicited proposal to USAID/Haiti to implement a new and expanded seed production and multiplication activity to increase the country's seed supply.

After USAID/Haiti received ORE's proposal, the document was reviewed favorably by the Project Committee which recommended that the one-year proposed seed program be approved as a three-year stand-alone program. The Committee and ORE believe that the additional time and funding will ensure that ORE's seed production program will be sustainable after the grant ends.

B. Project Description

The purpose of the Seed Production and Multiplication project is to increase the availability of high quality seeds to small farmers for food production. Its goal is to increase farmers' income and production. The grant will support ORE's efforts to increase the supply of good quality seeds to food farmers and to develop and implement a sustainable seed production and multiplication program in Haiti. The project is comprised of the following components:

a) Maintenance and multiplication of basic seeds;
b) Production and multiplication of commercial seeds;
c) Expansion of seed drying, handling and storage facilities;
d) Seed Marketing; and
e) Training and technical assistance to farmers and seed producers groups.

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The Committee recommended that the project be implemented in two phases. The first phase will consist of A.I.D. support to ORE's production and multiplication of basic and commercial seeds. During the 18 month first phase, the project will produce quality seed for distribution to farmers at the current market price for grains. This will enable farmers to benefit from the use of improved seeds during the current economic crisis. USAID/Haiti and ORE with its developed business plan expect the commercial seed production to become sustainable after the first phase of the project. However, depending on the recommendations of the developed business plan, the time period targeted for achieving a sustainable commercial seed production activity may need to be modified. During the second phase, prices will be raised to cover full production costs, allowing it to become a self-sustained activity. It is assumed that the economic crisis will not worsen and farmers will be willing to pay higher prices for quality seeds once they experience higher yields and an increased incomes from using improved seeds.

A.I.D. support in the second phase will decrease gradually and will cover only the production of basic seeds and training.

As recommended by the Project Committee, the Agricultural Development Office staff has worked with ORE to address issues identified by the Committee which should increase the sustainability of the seed production activity. Subsequent to these discussions, ORE has revised its proposal which now includes several changes.

A short-term financial consultant from IESC will be recruited to assist ORE in the development of a production and marketing plan which will help the organization become self-sustainable. This business plan will provide guidance on keeping production costs down, distribution and marketing strategies, and identifying required production levels to cover the full cost of the commercial seed production activity and partial cost of basic seed production. Indicators and benchmark will be developed to measure ORE's progress towards financial and productive sustainability. ORE will concentrate its activities in the Southern region. Training will receive more emphasis and some training support may be solicited from the Center of Management and Productivity. To ensure broad participation, independent private seed producers will be included in the training program. ORE will contract short-term seed production specialists to conduct an assessment and to provide recommendations on improving the seed production activity to ensure that targets are met.

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C. Financial Summary

A.I.D. funds will be obligated through a Cooperative Agreement with the Organization for Rehabilitation of the Environment. The planned three year life-of-project funding level is $1.4 million from the ESF Grant funds. It will support ORE operational costs, equipment, materials, technical assistance, training, seed production costs, evaluation and audit. The total LOP funding amount will be obligated in FY 1992 during the fourth quarter in the following major budget categories (rounded):

Category	Amount (Rounded)
Salaries	$654,000
Travel	15,000
Equipment	145,000
Technical Assistance/Evaluation	55,000
Commodities and Supplies	274,000
Training	76,000
Operations	115,000
Audit	66,000
Total	**$1,400,000**

In addition, ORE will establish a revolving fund system which will finance the purchase of basic seeds directly from the seed multipliers. ORE will sell the processed seeds through its distribution network. The proceeds of the sales will be deposited into the revolving seed funds to support the seed production program on a sustainable basis.

D. Implementation

ORE will implement the Seed Production and Multiplication project through a Cooperative Agreement with USAID/Haiti and solicit technical assistance and training support through contracts and purchase orders and buy-ins to other A.I.D. funded projects. Procurement of equipment, supplies, and commodities will be the responsibility of ORE. The Contract Officer will approve a justification for non-competitive award to ORE and the Mission plans to negotiate the CA with ORE shortly after project authorization. Overall responsibility for the Seed Production and Multiplication project rests with the Chief of the Private Enterprise and Agricultural Development Office, with day-to-day management and responsibilities delegated to one of the Agricultural Officers who will serve as the Project Officer and will manage the Cooperative Agreement with ORE. ORE will be responsible for procurement of project services, supplies, commodities and equipment from its grant funds.

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E. Findings

The Project Committee met twice and discussed and resolved several issues. These issues related to the sustainability of the seed activity, training, and administration. The Committee suggested and ORE agreed that the Seed Production and Multiplication Program would have a better chance of becoming sustainable if additional time and funding were provided, the administrative structure were reorganized to operate more cost-effectively, short-term consultants to develop a financial and production strategy were hired, seed distribution were expanded to better support the agricultural sector, and training support assistance from the Center of Management and Productivity was sought. After a revision of the proposal to integrate the above recommendations, the proposal was approved by the Project Committee.

F. Notification to Congress:

The CN for this project expired on August 21, 1992 without objection.

G. Authority:

The LAC Revised Delegation of Authority Number 752, Section II D (91 State 259973) provides you with the authority to authorize a project that does not result in a life-of-project in excess of ten years and does not exceed $20 million over the approved life of project.

Section 123 (e) of the Foreign Assistance Act of 1961, as amended (FAA) allows continued support of programs of PVOs and cooperatives which were already being supported before the prohibition of assistance went into effect. On March 4, 1992, the Assistant Administrator for the LAC Bureau approved an Action Memorandum which included seed for food production as part of Haiti's Interim Program Plan as an activity to be continued after May 31, 1992 under Section 123(e) authority.

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III. RECOMMENDATIONS

That you sign the attached Project Facesheet and Project Authorization, thereby, approving the Seed Production and Multiplication project at a life-of-project funding of $1.4 million.

Approved: _____ Disapproved: _____

Gerard Bowers
Acting Director
USAID/Haiti

Gerard Bowers
Acting Director
USAID/Haiti

Date: 9-11-92

Clearances:

PPS:SGregoire _____ Date: 09/03/92
ADO:MFontaine _____ Date: 09/02/92
ADO:MMartin _____ Date: _____
PPS:LDowning _____ Date: 9/4/92
CONT:RBurkhart _____ Date: 9-10-92

Drafters: MMartin _____ Date 9/2/92
GSpence _____ Date 9/2/92

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