

CONVENIOS DEL AÑO 1994
DEL 177 AL 183



ADDENDUM A LA CARTA DE ENTENDIMIENTO ENTRE LA COMISION NACIONAL PARA LA ATENCION DE REPATRIADOS, REFUGIADOS Y DESPLAZADOS -CEAR- Y EL INSTITUTO INTERAMERICANO DE COOPERACION PARA LA AGRICULTURA -IICA-, PARA EL APOYO A LA EJECUCION DEL PROYECTO DE REACTIVACION ECONOMICO-SOCIAL DE LAS COOPERATIVAS AGROPECUARIAS DE USUMACINTA, PASION Y LA MACHIACA: DESARROLLO AGROPECUARIO DE LA FINCA YALPEMECH.

En la ciudad de Guatemala, a los seis (6) días del mes de julio de mil novecientos noventa y cuatro (1994), José Mauricio Rodríguez Wever, Director Ejecutivo de la CEAR y Carlos Eugenio Aquino González, Director General del IICA;

CONSIDERANDO QUE

1. La Carta de Entendimiento a la que se refiere este *addendum* fue firmada el diez de diciembre de mil novecientos noventa (10-12-90) y ha sido reformada mediante *addenda* de fechas doce de agosto de mil novecientos noventa y uno (12-08-91), veintitrés de junio de mil novecientos noventa y tres (23-06-93) y treintuno de diciembre de mil novecientos noventa y tres (31-12-93).
2. El FONAPAZ, la CEAR y el IICA suscribieron el veintiséis de octubre de mil novecientos noventa y tres (26-10-93), un Acuerdo General de Cooperación Técnica en virtud del cual las tres Instituciones mantendrán relaciones de cooperación técnica y financiera para la rehabilitación social y económica de la población desarraigada más afectada por la violencia armada en el país.
3. El FONAPAZ ha resuelto destinar hasta cinco millones quinientos mil Quetzales (Q5,500,000,) para el financiamiento del desarrollo agropecuario de la Finca Yalpemech, como ampliación del Proyecto de Reactivación Económico-social de las Cooperativas Agropecuarias de Repatriados de Usumacinta, Pasión y La Machaca.



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ACUERDAN:

PRIMERO: Ampliar el período de vigencia inicialmente convenido, hasta el 31 de diciembre de mil novecientos noventa y seis (31-12-96), el cual es prorrogable de común acuerdo entre las partes previa firma del *addendum* correspondiente.

SEGUNDO: Incrementar el fondo del Proyecto con la suma de cuatro millones seiscientos quince mil ciento diecinueve Quetzales (Q.4,615,119) que FONAPAZ entregará a la CEAR, destinados a la ejecución del desarrollo agropecuario de la Finca Yalpemech, conforme al presupuesto que se anexa al presente acuerdo como parte integrante del mismo y que ha sido determinado sobre la base del respectivo proyecto.

TERCERO: Modificar la Cláusula Tercera, Aporte de las Partes, 3.2 De la CEAR, literal b., que dirá: "Cubrir al IICA los costos administrativos técnicos indirectos (CATI's), a razón del 8% sobre la totalidad de los recursos involucrados en el presente *addendum*. El IICA administrará los recursos de la CEAR provenientes del FONAPAZ asumiendo responsabilidad técnica.

Habiendo leído íntegramente los términos anteriores, ratificamos y firmamos el presente documento, en el mismo lugar y fecha establecidos al inicio del mismo.

José Mauricio Rodríguez Wever
Director Ejecutivo
CEAR



Carlos Eugenio Aquino Gonzáles
Director General del IICA

COMISION NACIONAL PARA LA ATENCION DE
REPATRIADOS, REFUGIADOS Y DESPLAZADOS

FONAFAPZ		CEAR		11CA
PROYECTO DE REACTIVACION ECONOMICO SOCIAL DE LAS COOPERATIVAS AGROPECUARIAS DE USUMACINTA, PASION Y LA MACHACA				
DESARROLLO AGROPECUARIO DE LA FINCA YALPENECH PRESUPUESTO ANALITICO POR COMPONENTES				
Rubro	Subtotal Q.	Total Q.	Equiv. US\$	
1. INVERSIONES PRODUCTIVAS		3,652,000	642,958	
1.1 Crédito para desarrollo de 937 parcelas individuales (1)	2,350,000			
1.2 Créditos para 12 proyectos ganaderos comunitarios (2)	1,302,000			
2. ADMINISTRACION Y ASISTENCIA TECNICA DEL PROYECTO		465,259	81,912	
2.1 Personal (3)	192,939			
2.1.1 1 Técnico Asistente	104,924			
2.1.2 1 Contador	38,795			
2.1.3 1 Secretaria	24,696			
2.1.4 1 Piloto	24,523			
2.2 Otros gastos de personal (3)	64,320			
2.2.1 Pasajes (3)(4)	9,600			
2.2.2 Movilización (3)(5)	46,000			
2.2.3 Supervisión FONAFAPZ-CEAR (3)(6)	8,640			
2.3 Gastos de oficina (3)	40,000			
2.3.1 Materiales de oficina	16,000			
2.3.2 Materiales para proyectos	24,000			
2.4 Organización social y desarrollo comunitario	71,000			
2.4.1 Capacitación de promotores	20,000			
2.4.2 Legalización de organizaciones	15,000			
2.4.3 Legalización de tierras	36,000			
2.5 Combustible y lubricantes (3)	60,000			
2.6 Mantenimiento de vehículo (3)	25,000			
2.7 Seguro de vehículo (3)	12,000			
3. EQUIPO		156,000	27,465	
3.1 1 vehículo	100,000			
3.2 1 generador	10,000			
3.3 1 proyector de transparencias	6,000			
3.4 mobiliario de oficina	10,000			
3.5 equipo de oficina	30,000			
4. COSTOS ADMINISTRATIVOS Y TECNICOS INDIRECTOS (overhead) (7)		341,861	60,187	
TOTAL:		4,615,119	812,521	



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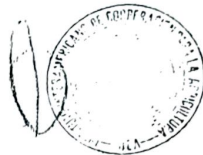
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Notas al Presupuesto

- (1) 940 créditos, por Q.2,424 cada uno.
- (2) 12 créditos, por Q.100,500 cada uno.
- (3) Calculado para 24 meses.
- (4) 1 pasaje mensual Flores-Guatemala-Flores.
- (5) Subsistencias por trabajo de campo, Q.40 diarios por 16 días al mes, para el Técnico Asistente y dos técnicos de apoyo (DIGESA y DIGESEPE)
- (6) Viáticos de 3 días cada dos meses, a 2 funcionarios.
- (7) 8% sobre el costo total del proyecto.

Junio de 1994



100A
Group 100A

TECHNICAL ANNEX

Index of Short Term Missions

Country: Guyana

Title of the Proposal: Milk and Beef Processing and Marketing in Guyana

Specialists Requested: Meat Processing Specialist
Food Technology Engineer
Economist

Country: Guatemala

Title of the Proposal: Berries Productions Process Improvement

Specialist Requested: Production, Harvest and Post-harvest Manager

Country: Guatemala

Title of the Proposal: Agroindustrial Improvement

Specialist Requested: Fruit & Vegetable Processing Specialist

Country: Jamaica

Title of the Proposal: Financial Analysis of Mini-sett Yam Produced for Export

Specialist Requested: Financial Analyst

Country: Jamaica

Title of the Proposal: Marketing Feasibility of Mini-sett Yam Export

Specialist Requested: Marketing Specialist

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1. INTRODUCTION

TITLE: Milk and Beef Processing and Marketing in Guyana
COUNTRY: Guyana
STARTING DATE: As soon as possible
LENGTH OF ASSIGNMENT: Six (6) weeks

SUMMARY OF ASSIGNMENT:

One of the objectives of this assignment is to evaluate the system of milk marketing (collecting, cooling, transporting) in specific regions and to develop a project that would be aimed at improving the milk marketing system in those areas. Associated with the development of such a project would be the assessment of the existing facilities at the Georgetown Milk Plant and designing a project for the modernization of the Plant to include UHT facilities and to facilitate a greater degree of product diversification.

The dual purpose nature of cattle production in Guyana (both milk and beef production) makes it necessary that the project also include a similar evaluation and feasibility study for the establishment of an abattoir and meat plant facilities of international standards, in the coastal region of Guyana. The lack of such a facility is one of the constraints to Guyana's ability to export meat.

2. REQUESTING ORGANIZATION: Inter-American Institute for Cooperation on Agriculture (IICA) Office in Guyana.

IICA has been assisting Guyana in livestock production for over ten years and animal health for four years. These actions have contributed to increased milk production and better documentation on the livestock subsector. IICA has promoted the formation of the Coordinating Committee for Cattle Development which integrates all relevant institutions from the private and public sectors. Present IICA staff working in livestock activities includes two Veterinarians and one Agricultural Economist.

ADDRESS: 18, Brickdam, Stabroek,
Georgetown, Guyana.

PHONE/FAX: Tel: (592) 2-68835;
Fax: (592) 2-58358/76219

CONTACT: Mr. Jerry La Gra,
IICA Representative, Guyana.

3. BACKGROUND INFORMATION

3.1 Guyana: Country Overview

Guyana is located on the northern coast of South America and is bounded on the north by the Atlantic Ocean, on the south and south west by Brazil, on the East by Suriname and on the west by Venezuela.

The most recent Household Income and Expenditure Survey (1993) estimates a total population of about 730,000 persons of which approximately 65% have levels of income below the poverty line. Some eight-seven percent of the population live on the narrow coastal strip which varies from about 10 to 40 miles in width. Georgetown, the capital city has an estimated population of 150,244 persons.

Guyana's population is comprised of six ethnic groups: East Indians, Negroes/Blacks, Amerindians, Chinese, Portuguese and Europeans.

Guyana is a country with diverse resources and great potential. The agricultural sector plays a major role in the economy. The contribution of agriculture, forestry and fishing to GDP fluctuated within the range of 23 to 26 percent over the period 1970-1990. Within this sector, sugarcane and rice cultivation plays a dominant role. There is great potential for the livestock sub-sector to make a greater contribution to the economic development of Guyana. However, a number of constraints must be overcome before the potential of this sub-sector is fully realized.

Guyana's mineral resources also make a significant contribution to GDP. Bauxite, gold, and diamonds are mined in the interior areas of Guyana.

The development of the manufacturing sector in Guyana has been hindered by unreliable utility services and the deteriorated state of basic infrastructure. Recent government efforts in terms of policy and funding are geared at addressing the major issues of the manufacturing sector.

3.2 Cattle Production

3.2.1 Characteristics of the Cattle Population

Guyana's cattle population of about 261,000 head is concentrated in the coastal regions, (Table 1). Available data indicates that this represents about 90 percent of the national cattle population. More than half of these animals are located in small herds of less than 50 head. A few cattle farms are also located on the Interior Savannas of Guyana, which include the Rupununi Savannah and the Intermediate Savannah.

Table 1: Distribution, Composition and Changes in the Coastal Cattle Population 1988-1992

CATEGORIES IN YEARS		
	TOTAL	% CHANGE
1. TOTAL # OF CATTLE		
1988	242466	
1990	279234	15.0
1992	260530	-7.0
2. No. of Cows		
1988	97006	-
1990	110953	14.0
1992	106939	-4.0
3. No. of Female Calves		
1988	31558	-
1990	33197	5.0
1992	33699	2.0
4. No. of Male Calves		
1988	-	-
1990	27465	-
1992	28845	5.0
5. No. of Heifers		
1988	49611	-
1990	62458	20.6
1992	45893	-27.0
6. No. of Breeding Bulls		
1988	4446	-
1990	5979	35.0
1992	7209	21.0
7. No. of other cattle		
1988	-	-
1990	39183	-
1992	37945	3.0

Source: Ministry of Agriculture Cattle and Milk Production Survey

In Guyana there is no strict classification of cattle as beef or dairy animals. About 41 percent of the cattle found in the coastal regions are adult females. Approximately 15 percent of these cows can be considered to be animals genetically more suited for milk production.

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Considering the genetic character of the national herd, it can be said that it is made up predominantly of 'creole' type animals. These are basically the descendants of Bos indicus breeds. In most coastal regions there has been the introduction of breeds such as American Brahman, Santa Gertrudis and Hereford to improve beef production and Holstein/Freisian and Jersey breeds as a result of various efforts in dairy improvement. As a consequence, about 10-15% of the national cattle population may be regarded as dairy types, another 60-70% as dairy/beef types while the remaining 15-30% exhibit in general the characteristics of beef types.

3.2.2 Production Trends

3.2.2.1 Milk Production

Over the past 10 years a great deal of effort has been devoted to the development of the cattle industry in Guyana, notably the dairy sector. The National Dairy Development Programme (NDDP), established in March 1984, has spearheaded the effort to make Guyana self-sufficient in milk production. Table 2 shows the domestic production of fresh milk during the period 1983-1992.

Table 2: Domestic Fresh Milk Production 1983-1992

Year	Production of Milk (000 Lit)	Annual Percentage Change
1983	12,729	-
1984	16,366	28.6
1985	21,821	33.3
1986	23,639	8.3
1987	27,731	17.3
1988	28,799	3.7
1989	31,822	10.5
1990	34,692	9.0
1991	36,400	4.9
1992	39,400	8.2

Source: NDDP Estimates

It has been estimated that the national requirement for fluid milk is about 55 million litres (12 million gallons). Table 2 shows that at the end of 1983 the level of fluid milk production in Guyana was below 13 million litres, representing approximately 25% of the national requirement.

In 1992, domestic production had increased to about 39.4 million litres representing about 71% of the estimated national requirement.

3.2.2.2 Beef Production

Cattle production on most farms on the coastal plain is a secondary agricultural activity. Therefore relatively small amounts of inputs are put into cattle production. The animals reared are dual purpose animals, used for both milk and beef production. The animals are often slaughtered to provide farmers with quick cash and for this reason farmers often refer to their cattle as a form of savings account. Farmers may also sell some cattle for slaughter during the dry season when conditions make it difficult to maintain many animals. About 70 percent of the beef produced in Guyana comes from small cattle farms on the coastland.

Table 3 shows that national beef production increased from 1,600 tons in 1985 to 3,700 tons in 1992. Between 1988 and 1990, beef production increased by 40%. A cattle and milk production survey in 1990 showed that the national herd increased by 15% for the same period (see Table 1). The increase in beef production between 1988 and 1990 seems to be a function of the increased productivity of the national herd, since the slaughtering of over 45,000 animals did not reduce the total cattle population; in fact the cattle population continued to grow.

Table 3: National Beef Production

Year	Production (Tons)	% Annual Increase
1985	1,600	-
1986	1,700	6.3
1987	1,800	5.9
1988	2,000	11.1
1989	2,400	20.0
1990	2,800	16.7
1991	3,000	7.1
1992	3,700	23.3

Source: Ministry of Agriculture, Planning Division

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In contrast to this situation, the 23.3% increase in national beef production between 1991-1992 coincided with a 15% decrease in the cattle population. This increase cannot therefore be considered as a positive trend for beef cattle production in Guyana. It was a result of farmers' efforts to concentrate more effort on rice production, due to favourable market conditions for rice. Many farmers therefore significantly reduced their herd size. Death losses due to a suspected bovine rabies outbreak on the Essequibo Coast also contributed to the reduction in the national cattle population during this period.

3.2.2.3 Marketing and Processing of Milk

Marketing of milk and milk products in Guyana can be considered to be in the very early stages of development. There is no organised system for collection, processing and distribution of milk. Quality and sanitary standards are not enforced and there is no diversification in the product market.

The lack of adequate infrastructure in terms of roads, electricity and transportation, has conspired against the development of a distribution network, that would allow for the adequate handling of such a perishable product throughout the distribution chain from the producer to the final consumer.

3.2.2.4 Abattoir and Meat Plant Facilities

One of the most important constraints to Guyana's ability to export meat to other Caribbean countries is the obsolete Georgetown Municipal Abattoir, constructed in 1933, which is controlled by the Municipality of Georgetown. The slaughter of cattle, pigs and small ruminants is carried out under primitive and unhygienic conditions, which do not meet with the necessary sanitary standards for export. Besides preventing exportation, these conditions pose a health risk both to Guyanese consumers of meat and to laborers in the abattoir.

Due to inadequate facilities and equipment, cattle, pigs and sheep are slaughtered on the abattoir floor, then dragged and carried on men's backs to various work stations. The water supply and drainage are inadequate, resulting in generally unsanitary conditions. Animals are not washed before being slaughtered. Lairage facilities are inadequate and often overcrowded, resulting in bruising and the occasional escape of animals. Because chute facilities are not in place to restrain animals, ante-mortem examination is difficult or impossible. Facilities for the post-mortem inspection of heads and organs are inadequate or nonexistent. There is no system of carcass and organ identification, making disease surveillance with traceback to farm of origin difficult or impossible. According to present national regulations, post mortem examination is performed by Public Health Inspectors who are not veterinarians or veterinary technicians. As these inspectors do not have sufficient technical knowledge and as no laboratory equipment (microscope, microbiology, reagents) are available, laboratory confirmation of disease

is not-possible. Inspected carcasses are manually removed and thrown on trucks, carts, vans or car trunks to be transported to markets or meatshops. Refrigerated vehicles or holding facilities are not available. Condemned organs and carcasses are transported by open carts to the city incinerator, constituting a risk to public health. There are no restricted areas in the slaughterhouse; anyone can enter and leave at will, creating the possibility of meat being disposed of illegally. Butchers and potential buyers have been observed trying to influence inspectors in decisions regarding condemnation.

4. BENEFICIARY ORGANISATION PROFILE

4.1 General Beneficiaries

The proposed project would be of direct benefit to a number of coastal livestock farmers, many of whom are presently only milking a small percentage of their cattle herd as a result of the difficulty of marketing milk at a profitable price.

A number of milk collectors would also benefit from improvement of the marketing system. It is proposed that some milk collectors be assisted in operating cooling centers. Presently, milk collectors cool their milk by placing chunks of ice in the milk containers. This reduces the quality of the milk and does not adequately cool it for transport to the milk plant in Georgetown.

Upgrading the facilities at the LIDCO Milk Plant would improve the quality and quantity of milk processed and enable more customers in the city center to readily purchase milk and milk products from retail outlets.

The establishment of an abattoir of international standards would facilitate the export of meat and meat products. This would open the door for livestock producers to be foreign exchange earners, thus increasing beef prices and profitability. This is quite likely to stimulate the interest in cattle production and promote a much needed element of diversity in the agricultural sector.

4.2 Livestock Development Company Limited (LIDCO)

The Livestock Development Company Limited (LIDCO) is a limited liability company with 15 shareholders including Guyanese Commercial Banks, Insurance Companies and Agri business organisations along with the Government of Guyana as a minority shareholder, whose mandate is the commercial development of the cattle industry in Guyana with the aim of achieving national self-sufficiency in milk and beef and eventually exports.

The Company, which is a registered joint stock company, was established as a precondition to improve the effectiveness of the Guyana Beef Cattle Project financed by the International Development Association of the World Bank. LIDCO actually commenced operations in the latter part of 1973 with two operations (the Mara and Pirara ranches) but has grown over the years and at present the LIDCO group of eleven (11) enterprises includes five beef operations, four dairy farms, a milk processing plant and a seed paddy production unit. The company has a staff complement of approximately 200 including fourteen Managers (with two vacancies).

Guyana is self sufficient in beef at present with a national herd of some 260,000 head of cattle. LIDCO, with a herd of approximately 13,000 heads, produces in the vicinity of 20% of national beef supplies. With beef being the cheapest form of animal protein in the country, Guyana is certainly ready to enter the export market in this commodity.

The country is not self-sufficient in milk, however. Indeed while some strides have been made in this direction (NDDP) considerable increased production is mandatory and, with the present "open economy" the marketing of locally produced pasteurised milk is proving extremely difficult with severe competition from imported milk forms (UHT and powdered milk) which are being "dumped" on the local market.

It is in these two areas of activity, the establishment of an abattoir cum feedlot that meets international standards, and the marketing of processed milk (and recommendations on the form, packaging, etc), that the company requires assistance.

4.3 National Dairy Development Programme (NDDP)

The National Dairy Development Programme (NDDP) was established in March 1984 as an Agency under the Ministry of Agriculture responsible for the promotion of National Dairy Development.

Objectives of the Programme include:

1. To increase milk production via improvements in pasture availability/management, dairy herd management and breeding policies.
2. To be instrumental in helping to improve the facilities relative to the collection, processing and distribution of milk and milk products throughout Guyana in keeping with acceptable hygiene and nutritional standards.
3. To achieve full self-sufficiency in milk products in the shortest time possible and replacing present imports with domestic production.
4. To provide an alternative and lucrative means of earning a living.

As of March 1994 the NDDP had a staff of 29 persons including the Programme Director, Senior Dairy Officer, 3 Senior Dairy Assistants, Senior A.I. Assistant, 14 A.I. Technicians and 9 Administrative staff.

Major NDDP activities undertaken by the above staff consist of:

1. The improvement of the nutritional status of the animals via grass, grass legume combinations and supplements.
2. The improvement of the predominantly creole cow towards a more high yielding animal through artificial insemination.
3. The improvement of the milk collection, procession and marketing systems.
4. The improvement of the sociological and educational processes as they relate to dairying.

5. PROJECT DESCRIPTION

5.1 Project Components

5.1.1 Milk collection system

The milk collection component of the project would be aimed at increasing production of milk from the Mahaica-Mahaicony-Abary Region of Guyana. This region is located on the coastal plain about 50 miles from the capital city Georgetown. This region has the highest concentration of cattle and produces more than 25 percent of the milk produced in Guyana. The production potential of this region is hindered by the absence of a milk marketing system.

The project component is expected to address this problem and is proposed to include the following activities:

- evaluation of possible locations for refrigerated collecting centers;
- feasibility study of operating a collection center;
- organization of farmers and milk collectors into groups, and develop management plan for cooling centers;
- evaluation of on-farm production and suggesting of methods for improving milk storage and handling practices, and
- recommendations for milk collection and transport to and from the cooling centers.

5.1.2 Modernization of Processing and Marketing System

The modernization of the LICDO Milk Plant would involve the following activities:

- analysis of market and market opportunities making recommendation as to products and volumes to be produced;
- an assessment of the existing facilities at the Plant in view of determining best options for processing and expansion of operations considering the capital investment required for installing modified pasteurizing equipment or UHT facilities and to facilitate product diversification;
- feasibility study of the proposed upgraded operation.

5.1.3 Establishment of a modernized abattoir

The establishment of an abattoir of internationally accepted standards would involve the following activities:

- evaluation of existing abattoir, beef production and marketing systems.
- estimation of capacity/meat processing facilities and equipment required for new abattoir;
- determine new abattoir location;
- design and plans;
- export and domestic marketing arrangements and public health related matters;
- ~~personnel~~ personnel requirement - recommendations for training program, and
- preparation of feasibility study document.

6. ADDITIONAL COMMENTS

- 1) The volunteers would work in collaboration with technicians from IICA, CARDI (Caribbean Agricultural Research and Development Institute, the Ministry of Agriculture, NDDP (National Dairy Development Program) and LICDO (Livestock Development Company).

- 2) The volunteer counterpart will be Charles Carmichael, Agricultural Economist, Peter Davis, Livestock Productionist and Sandra Vokaty, Animal Health Specialist at IICA Office in Guyana.
- 3) Logistical support will be coordinated by Jerry LaGra, IICA Representative in Guyana.

7. DESIRED VOLUNTEERS PROFILE

It is recommended that a team of three VOCA volunteers be assigned to this project. The team should include a Meat Processing Specialist, a Food Technology Engineer with specific expertise in dairy processing and marketing and an Agricultural Economist.

Terms of references for Meat Processing Specialist.

- 1. At least a M.Sc degree in Meat processing technology.
- 2. At least five years experience in slaughter and meat processing plants.
- 3. A sound knowledge of the international regulations regarding slaughter and meat processing plants.
- 4. Adequate skills in the designing of meat plants and the selection of the adequate equipment based on international and national standard regulations.
- 5. Language required: English

Terms of reference for Food Technology Engineer

- 1. At least ~~M.Sc~~ M.Sc degree in the relevant discipline.
- 2. At least five years experience in dairy processing technology and dairy management.
- 3. Working experience in a dairy plant producing diversified dairy products.
- 4. A knowledge of milk marketing systems, including the operation of cooling stations.
- 5. Language required: English.

Terms of reference for Economist

1. At least a M.Sc degree in Economics or Agricultural Economics.
2. A good knowledge of beef and dairy cattle production in tropical environments.
3. At least five year experience in project formulation and feasibility studies particularly with regards to agricultural production.
4. The volunteer should have experience with milk production/marketing cooperatives.
5. Language required: English.

SCOPE OF WORK
March 24, 1994)

I. TITLE: AGROINDUSTRIAL IMPROVEMENT

COUNTRY: Guatemala

START DATE: August 1st 1994

LENGTH OF ASSIGNMENT: Six (6) Weeks

**SUMMARY OF
ASSIGNMENT**

The Fruit and Vegetable Development Program -PROFRUTIA- has requested the services of a VOCA Volunteer to assess them in fruit and vegetable processing. The main objective of this assignment will be to improve the process of preparation, formulation, transformation and management of processed material.

II. REQUESTING

**ORGANIZATION: FRUIT AND VEGETABLE DEVELOPMENT PROGRAM -
PROFRUTHA-**

**ADDRESS: 3a Calle 6-11 zona 9,
Oficina 607-611, Planta Baja
Guatemala, C.A.**

**PHONE/FAX: (502)2 318219 319267
(502)2 3273606 (tel.fax)**

CONTACTS: PROFRUTHA
Ing. Jorge Escobar -Executive Director-
Ing. Jorge Prado -Agro-Industry Unit
Coordinator-

VOCA/IAC
Jorge Salzar/Reyna De León de C.
(502)2 318642
(502)2 345895 (fax)

II. Target Organization Profile

The Fruit and Vegetable Development Program was established in 1989, as an effort made by the Ministry of Agriculture, Livestock and Food for the establishment and improvement of fruit trees plantations. The above is a response to a limited commercial exploitation of said species in Guatemala.

The Program is responsible for generating and carrying out projects to support fruit development in the different weather and land conditions that the country offers.

The Program's area of action has been primarily focused in tropical zones (0-800 m.a.j.s.l) where tropical species have been upgraded. Among these species the following ones can be mentioned: mango, papaya, pineapple, citric and others. Additionally, the Program has covered to a lesser degree the Central and Western Highlands, where the weather ranges from lukewarm to cold and where plantations of temperate climate fruit tree, raspberries, blackberries, etc. have been promoted.

The Program has established a strong vertical and horizontal organizational structure in order to carry out its activities. The vertical organization is based on five basic components:

- a. Extension and Technology Transfer;
- b. Production of Vegetative Material;
- c. Training of Technical Personnel; and
- d. Applied Research.

The horizontal organization consists on the delimitation of the geographical areas that the program covers in work regions with the same characteristics. In these regions controlled and supervised actions are developed by specific personnel assigned to each of them.

Jointly with the actions aimed at the establishment of new plantations of fruit trees and the improvement of existing ones, the Program has established a specific project for Fruit and Vegetable Industrialization and Marketing with the idea of promoting agro-industries.

III. Industrialization and Marketing of Fruits and Vegetables Project Background

This Project is intended to promote small agroindustrial plants supported and managed by the same producers. In order to achieve its purposes the project has two basic components:

- a. **Promotion and Motivation:** The primary objective of this component is to motivate individuals and organized groups through their participation in training

and demonstrations of industrial processes.

These agroindustrial processes include:

1. **Bottled Products:** Marinated vegetables, jellies, marmalades, syrups, juices, nectars, etc. made of fruits such as apple, peach, pear, plum, mango, pineapple, papaya, raspberry, blackberry, etc. and from a variety of vegetables.
2. **Dehydrated Products:** fruits and vegetables. To develop these agroindustrial processes, the project has a portable bottler plant (capacity: 275 kg/hour), a fixed bottler plant (capacity: 275 kg/hour) located in the Central Highlands of Guatemala and a dehydrator plant (capacity: 180 kg/hour) located in the Western Highlands of the country.

b. **Marketing and Technical Assistance**

Through this component, technical assistance services are provided to the fruit producers. These services include the development of feasibility studies, productive process research and market research.

IV. Project Description:

The Fruit and Vegetable Development Program -PROFRUTHA- has requested the services of a VOCA Volunteer to assess them in fruit and vegetable processing. The main objective of this assignment will be to improve the process of preparation, formulation, transformation and management of processed material.

The following is a brief description of the areas of work that the VOCA Volunteer will be asked to carry out:

1. *Evaluate the present conditions of each of the 3 plants, including their housing, processing equipment, reception centers, etc.*
2. *Determine the potential to improve the quality and efficiency of the current and potential productive processes within the different lines of production.*
3. *Provide recommendations regarding means to reduce production costs without affecting quality standards.*
4. *Facilitate a training process (theoretical and practical) to the technical personnel assigned to each plant in the phases of preparation, formulation, processing, management, etc. of the different products processed by the Program. (For this*

purpose a detailed work-plan will be designed between the Volunteer and the Technical Director of the Program).

5. *Research and provide appropriate recommendations regarding the upgrading and diversification of fruit and vegetable processing technologies.*
6. *Suggest appropriate means to improve the storage of the products obtained in the plant using refrigeration and environmental controls techniques.*
7. *Develop a final report, directed to PROFRUTHA, in which final observations, conclusions and recommendations will be detailed.*

V. Description of Guatemala:

Guatemala (108,889 square Km.), is the most populous of the Central American republics and the only one which is largely Indian in language and culture. Two-thirds of its territory is mountainous and 38% is forested. It has coastlines on the Pacific (240 km.), and on the Caribbean (110 km.).

About 55% of the total population (9.2 m in 1990) are Amerindian, while 4% are ladino and only 3% black or white. Birth rate: 39.3 per 1,000; infant mortality, 46.6 (1988); population growth: 2.9%. UN statistics show that 87% of the population live in poverty and 7% cannot afford a minimum diet. The indigenous people of Guatemala are mainly of Maya descent. There are 22 recognized language groups of the Guatemalan Maya, with 100 or more dialects.

A lowland ribbon, nowhere more than 50 km. wide, runs the whole length of the Pacific shore. Cotton, sugar, bananas and maize has been the traditional crops of this lowland. From this plain the highlands rise sharply to heights of between 2,500 and 3,000 meters and stretch some 240 km. to the N before sinking into the northern lowlands. A string of volcanoes rise boldly above the southern highlands along the Pacific. There are intermont basins at from 1,500 to 2,500 meters in this volcanic area. Most of the people of Guatemala live in these basins, drained by short rivers into the Pacific and by longer ones into the Atlantic rainfall.

The lower slopes of these highlands, from about 400 to 1,500 meters are planted with coffee. Above 1,500 meters is given over to wheat and the main subsistence crops of maize and beans. Deforestation is a serious problem. The climate, which depends upon altitude, varies greatly. The pronounced rainy season in the highlands is from May to October; the dry season from November to April. Frost is common from December thru February.

The equitable distribution of occupied land is a pressing problem. According to the 1979 census, there were 531,636 farms, of which 54% were less than 1.2 hectares, 34% were of under 7 hectares, while less than 1% were of more than 900 hectares.

In international trade the focus is still heavy on agriculture, which accounts for two thirds of total exports. Coffee is the largest export item, followed by sugar, but bananas, sesame and cardamom are also important crops. There has been an attempt to diversify agricultural exports with a consequent increase in tobacco, vegetables, fruit, ornamental plants, and beef exports.

The industrial sector has been growing steadily; these include rubber, textiles, paper and pharmaceuticals, chemicals, furniture, petroleum products, electrical components and building materials are also produced. The encouragement of "maquila" industries in the mid-1980's has attracted foreign investment, much of it from the Far East and has created low-paid jobs for about 80,000 guatemalans, mostly in garment manufacturing. "Maquila" exports rose from US\$20m in 1986 to nearly US\$207m in 1990.

Historically, Guatemala has had one of the most unstable political environments in the hemisphere. Most recently, during the months of April and May of 1993, a series of social crises provoked 3 coup de tat's within a 13 day period. With the Congressional election of Ramiro de Leon Carpio (former Human Rights Ombudsman) on the 6th of June, a new era of hope and has begun.

However, this democratic transformation will continue to encounter a variety of barriers: unemployment, lack of basic services, high levels of corruption and drug trafficking/money laundering. At the begining of 1994, the guatemalan government and the hemisphere's oldest insurgency movement have recommenced a negotiation process to subscribe a peace agreement.

VI. Additional Comments

1. The Volunteer is encouraged to come prepared with available didactic materials (slide shows, videos, pamphlets, etc.) that may help the assignment.
2. The volunteer's counterpart will be Mr. Jorge Prado (Technical Director of the Project of AgroIndustry and Marketing).
3. The Volunteer will be asked about lyophobic processes. As such, if possible, the gathering of information on the process would be greatly appreciated.
4. The volunteer will be located in three cities: Guatemala, Quetzaltenango and Jalapa where good accomodations can be found.

SCOPE OF WORK
(June 6, 1994)

- I. TITLE:** BERRIES PRODUCTIONS PROCESS IMPROVEMENT
- COUNTRY:** Guatemala
- START DATE:** August 15th 1994 or sooner
- LENGTH OF ASSIGNMENT:** Six (6) Weeks

**SUMMARY OF
ASSIGNMENT**

The Fruit and Vegetable Development Program - PROFRUTHA- has requested the services of a VOCA Volunteer to assess them in the field production process improvement of the following crops: Blackberry, Raspberry and Blueberry. The main objective of this assignment will be to conduct a training process directed to the technical personnel of PROFRUTHA, regarding the different agricultural cares to be considered to improve the productivity of the mentioned crops.

- II. REQUESTING
ORGANIZATION:** FRUIT AND VEGETABLE DEVELOPMENT PROGRAM -
PROFRUTHA-

ADDRESS: 3a Calle 6-11 zona 9,
Oficina 607-611, Planta Baja
Guatemala, C.A.

PHONE/FAX: (502)2 318219 319267
(502)2 3273606 (tel.fax)

CONTACTS: PROFRUTHA
Ing. Jorge Escobar -Executive Director-
Ing. Eddy Martínez -Technical Director-

VOCA/LAC
Jorge Salazar/Reyna De León de C.
(502)2 318642
(502)2 345895 (fax)

III. Target Organization Profile

The Fruit and Vegetable Development Program was established in 1989, as an effort made by the Ministry of Agriculture, Livestock and Food for the establishment and improvement of fruit trees plantations. The above is a response to a limited commercial exploitation of said species in Guatemala.

The Program is responsible for generating and carrying out projects to support fruit development in the different weather and land conditions that the country offers.

The Program's area of action has been primarily focused in tropical zones (0-800 m.a.s.l) where tropical species have been upgraded. Among these species the following ones can be mentioned: mango, papaya, pineapple, citric and others. Additionally, the Program has covered to a lesser degree the Central and Western Highlands, where the weather ranges from lukewarm to cold and where plantations of temperate climate fruit tree, raspberries, blackberries, etc. have been promoted.

The Program has established a strong vertical and horizontal organizational structure in order to carry out its activities. The vertical organization is based on five basic components:

- a. Extension and Technology Transfer;
- b. Production of Vegetative Material;
- c. Training of Technical Personnel; and
- d. Applied Research.

The horizontal organization consists on the delimitation of the geographical areas that the program covers in work regions with the same characteristics. In these regions controlled and supervised actions are developed by specific personnel assigned to each of them.

Jointly with the actions aimed at the establishment of new plantations of fruit trees and the improvement of existing ones, the Program has established a specific project for Fruit and Vegetable Industrialization and Marketing with the idea of promoting agro-industries.

IV. Fruit Trees Production Development Project Description:

This Project is intended to offer to the farmers different options to diversify their agricultural productions through fruit crops with high rates of profitability. The production of exportable volummes that gather high quality and competitive levels in the international market is pursued.

Within the services provided through this Project are included:

a. **Technical Assistance:**

This services are oriented to the establishment of new plantations, design and management of sanitary plans, fertilization, general cares, field inspections, post-harvest management and connections between buyers and producers.

b. **Nursery Establishment:**

The project provide orientation to the establishment of private fruit trees nurseries and their appropriate management. also the project has their own nurseries to produce and provide high quality plants for the establishment of new plantations.

c. **Research:**

Through specialized technicians the project detect problems or situations that limit the quality and quantity in the fruit production, and state studies of applied researching for the solution of said problems/situation.

Through the project technical assistance is provided for the following crops: Mango, Cashew, Avocado, Blackberry, Raspberry, Apple, Peach, Pear, Orange, Lemon, Grape, Papaya, Sapodilla, and other tropical fruit.

IV. **Project Description:**

The Fruit and Vegetable Development Program -PROFRUTHA- has requested the services of a VOCA Volunteer to assess them in the field production process improvement of the following crops: Blackberry, Raspberry and Blueberry. The main objective of this assignment will be to conduct a training process directed to the technical personnel of PROFRUTHA, regarding the different agricultural cares to be considered to improve the productivity of the mentioned crops.

The following is a brief description of the areas of work that the VOCA Volunteer will be asked to carry out:

1. *Conduct meetings with the Executive Director, Technical Director and other technical personnel of PROFRUTHA to develop a specific work plan (a preliminary work plan will be presented to the Volunteer at his/her arrival to the country).*
2. *Become familiar with the work area. This will be accomplished through meetings held with the PROFRUTHA personnel in the national and regional*

offices, as well as visits to the respective farms and to local Agro-industries that are processing this type of crops.

3. *During a four-week period provide a series of on-farm workshops to local producers. During this time, recommendations will be provided to improve the proceedings used to plant, cultivation practices, harvest and post-harvest technical procedures with the purpose of increasing their productivity and efficiency. During these workshops, the following aspects should have special emphasis:*
 - Proper practices to plant this crop applying the appropriate technology;*
 - Fertilization requirements;*
 - Principal Pests and diseases that affect economically this crop;*
 - New varieties which could be recommended to be introduced to the country;*
 - Irrigation requirements;*
 - Other cultural practices; and*
 - Harvest and post-harvest practices, etcetera.*
4. *During these same workshops discussions will take place regarding advantages/disadvantages of different mechanism to trade their production.*
5. *The volunteer will be expected to design a basic agronomical plan for the crop production as well as for the harvest and pos-harvest management.*
6. *To provide orientation to make a characterization of potential areas for the introduction of the Blueberry crop.*
7. *Facilitate a national Seminar directed to private producers and technicians working in related fields, regarding the international market situation, varieties with high demand in the international market (USA and Europe) and with potential to be produced under the climate and soil conditions existing in Guatemala.*
8. **Develop a final report, directed to the beneficiary organization, detailing final observations, conclusions, recommendations and needed areas for follow-through.**

It should be noted that all of the above detailed objectives will be carried out in conjunction with the Volunteer counterpart from the Beneficiary Organization, who will be assigned to this project on a full time basis.

V. Description of Guatemala:

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However, this democratic transformation will continue to encounter a variety of barriers: unemployment, lack of basic services, high levels of corruption and drug trafficking/money laundering. At the beginning of 1994, the Guatemalan government and the hemisphere's oldest insurgency movement have recommenced a negotiation process to subscribe a peace agreement.

VI. Additional Comments

1. The Volunteer is encouraged to come prepared with available didactic materials (slide shows, videos, pamphlets, etc.) that may help the assignment. Spanish language materials are preferred, but not essential.
2. The volunteer's counterpart will be Ing. Eddy Martinez -Technical Director-
3. The Volunteer will be based in Guatemala City, but will be traveling around rural area of the country. The climate conditions throughout the country during the assignment duration will be variable (hot and cold) and humid with frequent rains. Appropriate rain gear and hot and humid climate clothing advised. Women can wear slacks.
4. A meeting with the Agricultural Sector Officer in the AID/Mission is recommended. The volunteer is not advised to bring suits or formal dresses, but there may be an occasion to wear a tie.

VII. DESIRED VOLUNTEER PROFILE:

The ideal volunteer for this assignment would have to have the following characteristics:

- Possess a **strong** background in the Production, harvest and post-harvest management of the crops included din this project.

- Have experience providing and organizing the delivery of services of technical assistance for the above mentioned crops.
- Experience working with organizations which support small and medium size agricultural producers.
- The Volunteer should have a personality that allows, facilitates and promotes the interchange of knowledge, through a participatory process.

NOTE:

This Scope of Work has been translated by Laura Gómez who is not a native English speaker. Please excuse any grammatical or spelling error. THANKS A LOT.

SCOPE OF WORK

"FINANCIAL ANALYSIS OF MINI-SETT YAM PRODUCED FOR EXPORT"
and
"MARKETING FEASIBILITY OF MINI-SETT YAM FOR EXPORT"
in support of the

NATIONAL YAM EXPORT DEVELOPMENT PROJECT
AGRICULTURAL EXPORT SERVICES PROJECT/Project Management Unit
JAMAICAN EXPORTERS' ASSOCIATION

TARGET ORGANIZATIONAL PROFILE:

The Agricultural Export Services Project (AESP) was begun in 1990 as a project jointly funded by the Government of Jamaica and the United States of America (through the Agency for International Development-USAID). The project channels its' resources through sub-grantees (composed of cooperatives, producer groups, and other private agribusiness groups and other private and public sector entities) who provide services that are designed to achieve the following goals:

- * improve and increase the range and volume of the crops produced
- * improve the quality of export production
- * increase and improve the quality of export services

The AESP is designed to provide funding for both traditional and non-traditional crops. In Jamaica, the range of traditional crops include: bananas, citrus (oranges and mandarins), cocoa, coffee, and sugarcane. Non-traditional crops include, but are not limited to: tropical fruits (papaya, mango), yams, ornamental horticulture (anthurium), spices, and other vegetables.

Project funding is for a total of US\$16 million, with US\$10 million provided through USAID, and US\$6 million by the Jamaican government. The project is past the halfway mark in terms of funds disbursed and life (project phase-out is scheduled for 1996). The project portfolio is currently being revised by means of a technical review board called the Project Coordinating Committee (PCC) made up of representatives from the Ministry of Agriculture and its' Project Management Unit (PMU), the Jamaican Exporters' Association (JEA), and a USAID representative, who is a sitting member. The Chairman of the PCC is Mr. Clarence Franklin, who is also the Permanent Secretary to the Ministry of Agriculture. There are currently several sub-grantees receiving assistance under the AESP:

- *Western Banana Development Corporation
- *Tryall (Port Antonio) Banana Corporation
- *Non-Blue Mountain Coffee Growers
- *Richmond Fermentary (Cocoa/Coffee)
- *National Yam Export Development Project

The AESP project is coordinated by a Project Management Unit (the above-mentioned PMU) located in the Ministry of Agriculture. The staffing is currently made up of 2 full-time staff, Project Manager Mr. A.C. Allen, and a Technical Advisor, Mr. Earl Guise. It is expected that a Deputy Project Manager will be hired in the near future.

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The Jamaican Exporters' Association (JEA) was formed in 1965 to represent the interests of the exporter community, particularly with regard to government export and development policy, and to promote exports as a central strategy of economic development.

In early May of 1994, VOCA signed a cooperative agreement between the Government of Jamaica (represented by the Ministry of Agriculture), the JEA, and the Government of the United States of America (represented by USAID) to provide short-term technical assistance to the project's sub-grantees on a demand basis.

PROJECT OVERVIEW

Agriculture and natural resources in Jamaica is an important productive sector in the economy of Jamaica. The sector provides nearly 8% of the GDP, employs 27% of Jamaica's labor (approximately 150,000 farm families are directly supported by agriculture), and 14% of the country's export earnings. After bauxite and tourism, agricultural exports comprise the third largest source of foreign exchange, amounting to US\$170,924,000 in 1991. In 1993, traditional exports (sugar, bananas, coffee, citrus) have earned US\$162.8 million, while non-traditionals (ornamentals, yams and other tubers, tropical fruits) earned US\$31.4 million. The category of non-traditional crops has become an area of major focus within the farming sub-sector, showing an increase in performance by 15.9% in export volume over 1991.

Over the past 15 years; however, the growth rate of Jamaica's agricultural sector has been less than expected. In an effort to reverse this, it was felt that innovative methods had to be exploited and introduced to encourage production. The Jamaica Agricultural Export Services Project was designed specifically for this purpose. The effectiveness of the project lies in using available and new methods to enhance the productivity and also improve and expand export related-services.

The National Yam Export Development Sub-Project is an integral component to the AESP. The Sub-Project aims at increasing the export of yams by promoting an improved production system based on the "Mini-Sett" technique, which was developed in Nigeria at the International Institute for Tropical Agriculture (IITA) and introduced

to Jamaica by the IITA in 1985 under a joint Government of Jamaica/Univ. of the West Indies/IITA Root Crop Project.

Mini-Sett is a new technology for growing yam for the export market. In traditional yam cultivation, the yam heads of large yams must be removed before exporting. In Mini-Sett technology however, small, whole yams can be produced that are more uniform in shape and do not need to be treated with chemicals before they are exported. Mini-Sett can also be grown on hillsides, make better use of planting materials so that more yam is harvested (yields using mini-sett technology are at 35,000-40,000 lbs. per unit acre compared to 10,000-12,000 lbs. obtained from traditional methods of technology), and does not require the large sticks that are used for traditional yams. The yams have the advantage of having a longer shelf-life as they are whole/uncut and do not have the "hollowing" frequently found in larger yams. Mini-Sett yams are in the size range of 0.3 to 2.0 kg. and are sold as whole tubers. They are available year-round and packed in 20.5 kg. boxes, usually in sawdust or coconut fiber to protect during shipment. They have a shelf-life of 2-3 months and can be boiled, baked, roasted, scalloped, or mashed, much like potatoes.

The principal agencies encharged with implementing the project are the Inter-American Institute for Agricultural Cooperation (IICA), RADA (Rural Agricultural Development Agency, which operates as the government extension service), JAMPRO (the Jamaican Promotions Corp.), and more specifically, a department of JAMPRO, known as JETCO, the MOA's PMU, and the JADF (Jamaican Agricultural Development Foundation).

The first phase (3 years) of the project is scheduled to phase-out in October '94. The specific objectives of the project were the following:

- promote general adoption of the Mini-Sett technique by 1000 farmers
- substitute 500 acres of traditional production with Mini-Sett
- increase yam exports by 20%

Using data gathered by RADA, the results of the project's phase were the following:

*over 1500 farmers have adopted the technology, with over 200 being involved with the method of production for over one year

*preliminary data suggesting upwards of 300 acres have been substituted

*exports of the commodity in 1992 was 13,374,000 kg, reflecting a 50% increase over the 8,931,000 kg. exported in 1989. The 1992 figure also shows a 19% increase over those of 1990. (in 1993, JETCO, the only company exporting mini-sett yams on a significant level, exported 26,884 lbs.).

Subsequent reviews made by the AESP Technical Advisor and others suggested that there seemed to be a sufficient amount of interest evinced by producers to continue the project and that an extension of the project through IICA and RADA should be considered.

Based on these evaluations, there was an official request by RADA to extend funding for the program for an additional 3 years.

It is against these generally optimistic indicators, however; that a few recommendations were made to warrant extension of the project. During the first phase, the original program consisted mainly of teaching the technology to farmers through demonstration plots focusing on the parishes of Clarendon, Manchester, Trelawny, St. Ann, St. Catherine, St. Andrew, and Hanover.

There was no marketing component, nor was there a comprehensive financial/cost analysis done to determine whether producing Mini-Sett yams for export was a financially sound undertaking. There are several market evaluations; primarily in the Bull Ring Wholesale Market in Birmingham, England, and shorter reports on the problems exporters face, but there is no relation of data relating exportable quality yields, money returns, market acceptance, and other relevant historical data that could provide a sounder basis on which to base future funding or other activities.

The current marketing strategy targets the "ethnic markets" of North America and the UK and has not examined nor pursued any niche markets outside of that or attempts to investigate other cross-over potential. It will also be necessary for any marketing study to provide a review of promotional options.

PROJECT OBJECTIVES

Given the above, the Jamaican Exporters' Association, in coordination with the AESP/Project Management Unit; has requested the services of two VOCA Volunteers to assist in perform a comprehensive financial analysis of producing the Mini-Sett yam for export, and another to provide a comprehensive market feasibility study on Mini-Sett yam for export. If at all possible, the projects should be carried out simultaneously, or allow the two volunteers to spend at least one to two weeks together in the field, with the marketing feasibility volunteer preceding the financial analyst.

It should be mentioned that the bulk of the actual production technology was carried out by RADA, with IICA being the financial manager during the first phase of the project.

For the second phase of the project, it is envisioned by IICA that small farmers (holdings up to 10 acres) will be the main target beneficiary group. How to

incorporate that sector into producing for economies of scale and organizing (there is currently no Yam Producers' Association) will be an important objective to be realized. IICA's plans are to hook up small farmers with a network of exporters (4-5 exporters have already been contacted), where the farmers and exporters would enter into a satellite contract farming arrangement where the exporters would be liable for providing the inputs (including training). The contract would have the farmer receiving a set farm gate price less the costs of inputs provided by the exporter. The proceeds would go into a revolving fund to support the creation of a Yam Growers' Association. IICA would initially be monitoring the revolving fund until the creation of the growers' group would come into being. It should be mentioned however, that "contract farming" in Jamaica does not have a very successful history.

The project objectives to be realized are as follows:

1) Upon arrival, conduct extensive interviews with representatives from the JEA, AESP/PMU, IICA, RADA, JAMPRO, and Kingston-based yam exporters. The Agricultural Marketing Corporation (AMC-Mrs. Rita Sands is a primary contact there) packing and handling facilities should be included, as well as facilities at Kingston Airport. Reports already completed should be consulted (a bibliography of reports available is attached to on the following pages).

2) Conduct field visits to a spectrum of yam producers for interviews and observations of production/supply capacity. (One of the more active producers, Mr. Richard Khouurie, of Mandeville should be included in any visit).

3) For the Marketing Feasibility Volunteer, draft a comprehensive report directed to the JEA and PMU determining whether a viable export market exists for mini-sett yams which should address at a minimum the following:

*Jamaica's competitive advantage/disadvantage on the world market vis-a-vis other minisett yam-producing countries (Costa Rica, France)

*Packaging, post harvest-handling, and promotional (e.g. labeling) recommendations

*Accessing/cross-over potential to other niche markets and alternative marketing centers

*Substitute product comparisons

For the Financial Analysis Volunteer, draft a comprehensive report directed to the JEA and PMU which should provide a cost analysis of production based on market price inputs, post-harvest handling prices (treatment plants, packing plants), establishment of a time-line, and determination of other cost inputs (labor, etc.).

The reports should be completed prior to leaving Jamaica.

4) Present the findings at a seminar to be held before representatives of the JEA, AESP/PMU, IICA, RADA, JAMPRO, USAID, and yam exporters.

It will essential for the VOCA Volunteers to begin collecting data prior to departure to Jamaica on project.

The VOCA Volunteers should be briefed by both the VOCA Program Officer in Washington, DC prior to departure and the USAID Project Officer upon arrival. The VOCA Volunteers should also be debriefed in-country and in Washington, DC upon return to the USA.

Length of project is estimated at 3-4 weeks.

The VOCA Volunteers will be based out of Kingston at either the Courtleigh Hotel, or at an full-service apartment (located adjacent to the Courtleigh) subject to preference and/or availability. The Volunteers should expect to be spending the night in secondary cities/towns as their in-country schedule calls for. Accommodations will most likely be in hotels or guest houses in that case. All addresses are located on the contacts page (last page) of this scope of work.

COUNTRY DESCRIPTION (please refer to the Country Information Section of the Briefing Book for a more comprehensive treatment of the country)

History

Jamaica has a rich and varied history beginning even before the arrival of Columbus in 1494, when the country was occupied by the Arawak Indians. The Island was captured from the Spanish by the British in 1655 and remained under direct British rule until political independence was granted in 1962.

Jamaica has a Westminster style constitution, with a Governor-General as the representative of the British Crown, and a bicameral Parliament. There is a House of Representatives consisting of elected representatives appointed by the Prime Minister and the Leader of the Opposition. The government is headed by a Prime Minister, who is required to consult with the Governor-General and the Leader of the Opposition on certain matters.

There are two major political parties, the JLP (Jamaican Labor Party) and the PNP (People's National Party); which have historically alternated power. From 1980-89, the JLP held office. They pursued a laissez-faire free market policy through the urging of the IMF, World Bank, and USAID. Because of a special political relationship with the Reagan administration, Jamaica received a relatively large outpouring of US assistance in the first half of the decade. The economy was substantially deregulated, the currency was devalued, and many public enterprises

were divested in the process of adjustment, which has now been on-going for some 14 years.

The eighties saw the development of free-zone manufacturing, especially of garments for export to the USA, the gradual recovery of bauxite/alumina production, and the rapid growth of tourism from North America. In the process, the traditional international economic relations, particularly with the USA, were strengthened at the expense of regional relations, such as Caricom trade.

In 1989, the PNP, led by the Honorable P.J. Patterson became the new government, and has continued the policies of the 1980's. Exports have been strongly encouraged in all sectors, and deregulation of the economy continues.

The Island and its' People

Jamaica is 235 kilometers long, and 82 kilometers at the widest point for a total area of 11,000 square kilometers. It lies in the Western Caribbean about 970 kilometers south of Miami, and 970 kilometers north of Panama, making it centrally located on the on shipping routes going through the Canal.

The population of Jamaica was 2.4 million in 1991, with an average annual growth rate of 1.1% from 1980-1991. Approximately 45% of the people are under 19 years of age, and a little less than 8% being above the age of 65. Based on the census of 1982, at least 48% of the population is urban; in 1943, the census estimated the urban population at that time to be 15%.

In the 1980's, net emigration, mainly to the USA, Canada, and the UK has averaged about 17,500 per year. The Jamaican expat community in the USA and the UK of 500,000 in each country at present. Remittances from these immigrants constitute an important part of private capital inflows, and of consumer imports annually.

The vast majority of the population is of African descent, but there are well established Indian, Chinese, Arab, and European communities as well. Christianity in its various denominations, is the religion of the vast majority of the population.

There are two international airports on the Island, Norman Manley in Kingston, and Sangster, in Montego Bay. They can both handle 747 aircraft. There are twelve active ports, the largest and most modern being Kingston (the seventh largest natural port in the world), which handles 80% of the incoming trade. Four of the other ports handle largely agricultural trade.

Jamaica has one of the most developed roads systems in the region. With about 13,000 kilometers of road, Jamaica has an average of 1.2 kilometers of road per square kilometer. Road transport is the primary mode of domestic transport for both people and freight; very little domestic produce is carried by railroad (there is 325 kilometers of track on the Island).

Agriculture

The main agricultural based exports are sugar, bananas, and coffee. In the 1980's, there was a rapid growth of non-traditional exports, targeted largely at ethnic communities overseas. Some doubts about the future of sugar and bananas have been generated by the unification of the European market which threatens traditional preferential arrangements enjoyed by Jamaica in the UK market.

The social structure in agriculture is still based on the traditions forged from the colonial experience. Approximately 82% of farmers are small farmers operating on 5 or less acres of land. The more fertile plains remain enclosed in large farms, some of which are government-owned sugar estates, and more recently, high-tech farms producing winter vegetables for the North American market.

Domestic agriculture has always played a stabilizing role for the economy as a whole. It has performed well, even in periods of over-all economic decline. Domestic food crops are grown primarily by small farmers. In recent years these farmers have faced stiff competition from cheap imports of food and from the rejected produce of the large export projects, especially winter vegetables, dumped on the local market. In 1988, Hurricane Gilbert did severe damage to the sector, but it has recovered quickly.

Food production is the largest sub-sector of manufacturing, with some 19.1% of total manufactured output in 1990. If sugar is included, the figure rises to 22.1% of that same year. The vast majority of output, with the exception of sugar, is sold on the local market. Sugar is exported primarily to the UK, the EEC, and the USA; most other manufactured products are sold on the Caricom (Caribbean Community) market.

CANDIDATE PROFILE

The ideal candidate(s) will have the following qualifications:

For the Financial Analyst

- *Background in Financial Analysis in the vegetable/fruit production market
- *Minimum 15 years of experience in domestic US and international financial sector
- *Minimum M.A. in Finance or Economics
- *Should have knowledge of Latin America & Caribbean regions

For the Marketing Study Volunteer:

- *Background in Marketing with strong aptitude in Promotion of vegetable/fruit sector
- *Ideally would have experience in product introduction into new market in North America from LAC region
- *Minimum 15 years experience in domestic/international marketing
- *Should have knowledge of Latin America & Caribbean regions

Contact Sheet

VOCA/Washington

Dennis J. Diligent
Program Officer
50 F. St., NW, Suite 1075
Washington, DC 20001
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fax: 202-783-7204

USAID/Jamaica

Mrs. Jennifer Rousseau
Project Officer
USAID/Jamaica
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Kingston 5
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AESP/PMU Jamaica

Mr. A.C. Allen
Project Manager, AESP
Ministry of Agriculture
Hope Gardens
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tel: 809-927-1872
fax: 809-927-1872

Jamaican Exporters' Association

Mrs. Beverley Morgan
Director

13 Dominica Dr.
Kingston 5
tel: 809-929-3831 or 929-1292
fax: 809-929-3831

Inter-American Institute for Cooperation on Agriculture (IICA)

Mrs. Hyacinth Chin-Suc
Technical & Administrative Coordinator
11 Fairway Ave.
Kingston 5
tel: 809-927-6462 or 927-4337 or 978-0781

ACCOMMODATIONS

Courtleigh Hotel
31 Trafalgar Rd.
Kingston 10
tel: 809-926-8174

The Courtleigh has air-conditioned rooms, satellite television, full-service restaurant and bar, swimming pool, and is located in New Kingston, approximately a 5 minute drive to USAID, JEA, IICA, and 10 minutes from the MOA. Rates are at US\$78 per night. There are a variety of restaurants, banks, shops, and supermarkets within walking distance.

If and when available, full-service apartments are located directly adjacent to the Courtleigh and would be rented through:

Mr. Owen Pitter
Allison, Pitter & Co.
1 Tremaine Rd.
Kingston 6
tel: 809-927-4724/5 or 927-9133

You will be advised prior to your departure where reservations have been made for you, with the knowledge that you may change accommodations to a comparable hotel once in-country if desired.

VARIOUS COMMENTS

You will be required to view a USAID security video upon arrival in Kingston. The video is approximately 10 minutes long and will be arranged upon arrival by Mrs.

Rousseau at the Mission. You will be briefed by Mrs. Rousseau at USAID offices the following morning after your arrival.

Arrangements will be made by the AESP/PMU to pick you up at the airport and provide you with ground transportation throughout your project. In the event that no one is at the airport to pick you up, please take a cab or courtesy bus to the hotel and contact any one of the people listed above of your arrival.

The rate of exchange is currently J\$31 to US\$1. Credit cards and travelers checks are widely accepted.

No shots or other immunizations are required for Jamaica. Water is potable throughout the Island. Valid passports are required for travel and a exit tax of J\$400 is levied at the airport prior to your departure.

Telecommunications are very good throughout the island for both domestic and international calls.

LETTER OF UNDERSTANDING
BETWEEN THE
INTER-AMERICAN INSTITUTE FOR COOPERATION
ON AGRICULTURE (IICA)
AND
VOLUNTEERS IN OVERSEAS COOPERATIVE ASSISTANCE (VOCA)

The Inter-American Institute for Cooperation on Agriculture (IICA) is the specialized agency for agricultural and rural development of the Inter-American System. IICA concentrates its efforts on five high priority areas of major concern to its member countries: Agricultural Policy Analysis and Planning; Technology Generation and Transfer; Organization and Management for Rural Development; Trade and Integration; and Agricultural Health; and

Volunteers in Overseas Cooperative Assistance (VOCA) is a private non-profit, international development organization which works to increase economic opportunities and incomes for members of all types of cooperatives and small- and medium-scale enterprises that are agriculture based. This is accomplished through highly-skilled volunteers who provide short-term, technical assistance. With 26 overseas offices and 6 United States based offices, VOCA is currently at work in more than 52 countries.

WHEREAS:

A General Agreement was signed between IICA and VOCA on July 1, 1994, in which the framework and legal basis were established for the signing of future Letters of Understanding; and

IICA and VOCA have expressed a desire to develop, coordinate and field VOCA short-term technical volunteers in support of IICA activities on a regional (LAC) basis.

NOW THEREFORE, the parties hereto agree as follows:

Article 1

Objective:

- a. VOCA will provide volunteer consultants in support of activities promoted by IICA within the Latin American/Caribbean region during the remainder of the VOCA (October 1 to September 30) 1994 fiscal year and during the entire 1995 fiscal year.
- b. These consultants will support those IICA activities which are directly related to promoting and strengthening programs and objectives that IICA may be carrying out on a national or regional basis.

Article 2

Responsibilities of signing Parties:

- a. VOCA will provide an extensive orientation for IICA Directors, Representatives and technicians regarding VOCA as an organization, the methodology and criteria it uses regarding the effective utilization of VOCA's resources. This orientation will be provided through written and telephone communications and, on a case by case basis, direct visits to IICA Headquarters or its Offices.
- b. IICA Headquarters and its Offices will identify and prioritize requests for short-term technical assistance, which will eventually be addressed by specialists recruited and fielded by VOCA.
- c. IICA Headquarters and its Offices will be responsible for the development and timely referral of the Requests for Assistance and the Scopes of Work for each VOCA assignment. These requests/scopes of work will be prepared according to standard VOCA guidelines and/or formats.

- d. Upon signature of this Letter of Understanding, IICA Headquarters, in coordination with the Offices that request the assistance of VOCA volunteers, will prepare six-month work programs that include all the missions needed for that period. In doing this consideration will be given to the fact that VOCA requires three months to process the request, and funding for the volunteers must fall within its fiscal year.
- e. Once VOCA has analyzed and accepted the work programs, said programs will be incorporated into the present Letter of Understanding, as an addendum to same. The initial Requests for Assistance and the Scopes of Work are included in the Annex of this Letter of Understanding and are an intergral part of same.
- f. The VOCA/LAC office will be responsible for the review and adaptation those Requests for Assistance and Scopes of Work as received from the IICA Headquarters and its Offices.
- g. VOCA/Washington will assure that IICA Headquarters receives copies of the final version of Requests for Assistance and Scopes of Work for each programmed VOCA assignment, which will be included pursuant to the above paragraph e.

Article 3

Contributions of the Parties:

- a. Volunteers in Overseas Cooperative Assistance, at its own expense, will cover all those costs that are incurred;
 - i) in the recruitment of the volunteer;
 - ii) transportation to the principal office of the requesting beneficiary organization and return to the U. S.; and
 - iii) the costs of food, lodging, clothing, care, passport immunizations, and insurance against loss from accident, illness, or theft of the volunteer.

- b. Volunteers in Overseas Cooperative Assistance will cover those central and regional costs incurred in the technical review and support of those Requests for Assistance and Scopes of Work as submitted by IICA.
- c. IICA will assure that it will either directly cover or share coverage with the beneficiary organizations with whom the volunteer (s) work or ensure that said organizations cover the following costs:
- i) In-country transportation, including travel to and from the volunteer's lodging to work daily;
 - ii) the costs of providing an office suitable to the volunteer's work;
 - iii) equipment related to the specialist's work;
 - iv) secretarial support in preparing memos, the volunteer's report and other secretarial support; and
 - v) at least one full-time professional counterpart who will act as the direct recipient of the knowledge and technologies to be transferred by the VOCA volunteer consultants and who could serve as interpreter, on a case by case basis.
- d. IICA will cover those costs incurred at its Headquarters and Offices during the promotion of VOCA activities, the development of Requests for Assistance, the development of Scopes of Work, the in-field support of those volunteers fielded as a result of these efforts and the evaluation of their activities. Upon agreement by both parties and on a case by case basis, VOCA agrees to share the costs of activities detailed in this paragraph.
- e. In cases where IICA Headquarters or the IICA Offices can cover some of the costs mentioned in the above paragraph a., VOCA will return any savings to the unit which generated them, by using them to fund additional missions or to extend a mission as long as it does not exceed the three months established by VOCA for assigning a volunteer.

Article 4

Mechanisms of coordination and decision making:

- a. VOCA and IICA, through mutual agreement, will decide in which countries of LAC they will carry out joint activities.
- b. Through its six regional recruitment offices, VOCA will be fully responsible for the identification, selection and timely recruitment of volunteers for each Scope of Work as received.
- c. Upon recruitment of each volunteer, the respective regional recruitment office will send a copy of the volunteer's qualifications (C. V.) to the pertinent IICA Office, to IICA/Headquarters, to VOCA/Washington and to VOCA/LAC. A copy of the volunteers' travel itinerary will also be sent at this time.
- d. As per USAID requirements, (funding source for this agreement) VOCA will be responsible for advising the pertinent USAID local mission of the volunteers' arrival.
- e. Prior to and/or upon arrival in the country, IICA is responsible for providing:
 - i) A detailed work plan, prepared prior to the volunteer's arrival;
 - ii) in-country transportation;
 - iii) a suitable office space;
 - iv) secretarial support;
 - v) at least one full-time volunteer counterpart, who could serve as interpreter, on a case by case basis; and
 - vi) its full cooperation so as to maximize the effectiveness of the specialist's contributions.

- f. IICA is encouraged to facilitate the full or partial cooperation of the beneficiary organizations/communities in the provision of the above detailed requirements.
- g. IICA recognizes that VOCA specialists are volunteers, receiving no salary, fees or honorariums from VOCA or from IICA.
- h. IICA understands that VOCA volunteers have no authority to bind VOCA to any contract or agreement and agrees to bring no legal action nor assert any claim against VOCA in connection with this agreement or specific volunteer assignment.
- i. Each volunteer and VOCA will be fully responsible for assuring that a final report, which details final observations, conclusions and recommendations of each assignment, will be provided to IICA. All final reports will follow the VOCA standard format.
- j. IICA will assure that each volunteer's final report is translated into the pertinent local language and distributed amongst the beneficiaries as needed. Although these publications will be the sole property of IICA, credit will be given to VOCA in same.

Article 5

Term and Amendment

- a. It is fully understood by both parties that this Letter of Understanding is valid only during VOCA's fiscal year 1994 and 1995 (October 1 thru September 31 of each year).
- b. Both parties agree that upon revision of the initial results, this Letter of Understanding may be modified upon mutual agreement and broadened to include the funding and fielding of VOCA volunteer assignments under financial agreements that are above and beyond VOCA's current sources of funding.

- c. This Letter of Understanding may be canceled, modified or extended upon mutual consent by both parties, and will enter into effect immediately upon signature by the last party.

For the Inter-American
Institute for Cooperation
on Agriculture (IICA)



Carlos E. Aquino
Director General

For the Volunteers in Overseas
Cooperative Assistance (VOCA)

x 
Robert Cater
Director Latin America/Caribbean

Date: 23 de agosto de 1994

Place: IICA Headquarters
San José, Costa Rica

Date: 29 de agosto de 1994

Place: VOCA/LAC Office
Guatemala City

TECHNICAL ANNEX

Index of Short Term Missions

Country: Guyana

Title of the Proposal: Milk and Beef Processing and Marketing in Guyana

Specialists Requested: Meat Processing Specialist
Food Technology Engineer
Economist

Country: Guatemala

Title of the Proposal: Berries Productions Process Improvement

Specialist Requested: Production, Harvest and Post-harvest Manager

Country: Guatemala

Title of the Proposal: Agroindustrial Improvement

Specialist Requested: Fruit & Vegetable Processir of Specialist

Country: Jamaica

Title of the Proposal: Financial Analysis of Mini-sett Yam Produced for Export

Specialist Requested: Financial Analyst

Country: Jamaica

Title of the Proposal: Marketing Feasibility of Mini-sett Yam Export

Specialist Requested: Marketing Specialist

1. INTRODUCTION

TITLE: Milk and Beef Processing and Marketing in Guyana
COUNTRY: Guyana
STARTING DATE: As soon as possible
LENGTH OF ASSIGNMENT: Six (6) weeks

SUMMARY OF ASSIGNMENT:

One of the objectives of this assignment is to evaluate the system of milk marketing (collecting, cooling, transporting) in specific regions and to develop a project that would be aimed at improving the milk marketing system in those areas. Associated with the development of such a project would be the assessment of the existing facilities at the Georgetown Milk Plant and designing a project for the modernization of the Plant to include UHT facilities and to facilitate a greater degree of product diversification.

The dual purpose nature of cattle production in Guyana (both milk and beef production) makes it necessary that the project also include a similar evaluation and feasibility study for the establishment of an abattoir and meat plant facilities of international standards, in the coastal region of Guyana. The lack of such a facility is one of the constraints to Guyana's ability to export meat.

2. REQUESTING ORGANIZATION: Inter-American Institute for Cooperation on Agriculture (IICA) Office in Guyana.

IICA has been assisting Guyana in livestock production for over ten years and animal health for four years. These actions have contributed to increased milk production and better documentation on the livestock subsector. IICA has promoted the formation of the Coordinating Committee for Cattle Development which integrates all relevant institutions from the private and public sectors. Present IICA staff working in livestock activities includes two Veterinarians and one Agricultural Economist.

ADDRESS: 18, Brickdam, Stabroek,
Georgetown, Guyana.

PHONE/FAX: Tel: (592) 2-68835;
Fax: (592) 2-58358/76219

CONTACT: Mr. Jerry La Gra,
IICA Representative, Guyana.

3. BACKGROUND INFORMATION

3.1 Guyana: Country Overview

Guyana is located on the northern coast of South America and is bounded on the north by the Atlantic Ocean, on the south and south west by Brazil, on the East by Suriname and on the west by Venezuela.

The most recent Household Income and Expenditure Survey (1993) estimates a total population of about 730,000 persons of which approximately 65% have levels of income below the poverty line. Some eight-seven percent of the population live on the narrow coastal strip which varies from about 10 to 40 miles in width. Georgetown, the capital city has an estimated population of 150,244 persons.

Guyana's population is comprised of six ethnic groups: East Indians, Negroes/Blacks, Amerindians, Chinese, Portuguese and Europeans.

Guyana is a country with diverse resources and great potential. The agricultural sector plays a major role in the economy. The contribution of agriculture, forestry and fishing to GDP fluctuated within the range of 23 to 26 percent over the period 1970-1990. Within this sector, sugarcane and rice cultivation plays a dominant role. There is great potential for the livestock sub-sector to make a greater contribution to the economic development of Guyana. However, a number of constraints must be overcome before the potential of this sub-sector is fully realized.

Guyana's mineral resources also make a significant contribution to GDP. Bauxite, gold, and diamonds are mined in the interior areas of Guyana.

The development of the manufacturing sector in Guyana has been hindered by unreliable utility services and the deteriorated state of basic infrastructure. Recent government efforts in terms of policy and funding are geared at addressing the major issues of the manufacturing sector.

3.2 Cattle Production

3.2.1 Characteristics of the Cattle Population

Guyana's cattle population of about 261,000 head is concentrated in the coastal regions, (Table 1). Available data indicates that this represents about 90 percent of the national cattle population. More than half of these animals are located in small herds of less than 50 head. A few cattle farms are also located on the Interior Savannahs of Guyana, which include the Rupununi Savannah and the Intermediate Savannah.

Table 1: Distribution, Composition and Changes in the Coastal Cattle Population 1988-1992

CATEGORIES IN YEARS		
	TOTAL	% CHANGE
1. TOTAL # OF CATTLE		
1988	242466	
1990	279234	15.0
1992	260530	-7.0
2. No. of Cows		
1988	97006	
1990	110953	14.0
1992	106939	-4.0
3. No. of Female Calves		
1988	31558	
1990	33197	5.0
1992	33699	2.0
4. No. of Male Calves		
1988	-	
1990	27465	
1992	28845	5.0
5. No. of Heifers		
1988	49611	
1990	62458	20.6
1992	45893	-27.0
6. No. of Breeding Bulls		
1988	4446	
1990	5979	35.0
1992	7209	21.0
7. No. of other cattle		
1988	-	
1990	39183	
1992	37945	3.0

Source: Ministry of Agriculture Cattle and Milk Production Survey

In Guyana there is no strict classification of cattle as beef or dairy animals. About 41 percent of the cattle found in the coastal regions are adult females. Approximately 15 percent of these cows can be considered to be animals genetically more suited for milk production.

Considering the genetic character of the national herd, it can be said that it is made up predominantly of 'creole' type animals. These are basically the descendants of Bos indicus breeds. In most coastal regions there has been the introduction of breeds such as American Brahman, Santa Gertrudis and Hereford to improve beef production and Holstein/Freisian and Jersey breeds as a result of various efforts in dairy improvement. As a consequence, about 10-15% of the national cattle population may be regarded as dairy types, another 60-70% as dairy/beef types while the remaining 15-30% exhibit in general the characteristics of beef types.

3.2.2 Production Trends

3.2.2.1 Milk Production

Over the past 10 years a great deal of effort has been devoted to the development of the cattle industry in Guyana, notably the dairy sector. The National Dairy Development Programme (NDDP), established in March 1984, has spearheaded the effort to make Guyana self-sufficient in milk production. Table 2 shows the domestic production of fresh milk during the period 1983-1992.

Table 2: Domestic Fresh Milk Production 1983-1992

Year	Production of Milk (000 Lit)	Annual Percentage Change
1983	12,729	-
1984	16,366	28.6
1985	21,821	33.3
1986	23,639	8.3
1987	27,731	17.3
1988	28,799	3.7
1989	31,822	10.5
1990	34,692	9.0
1991	36,400	4.9
1992	39,400	8.2

Source: NDDP Estimates

It has been estimated that the national requirement for fluid milk is about 55 million litres (12 million gallons). Table 2 shows that at the end of 1983 the level of fluid milk production in Guyana was below 13 million litres, representing approximately 25% of the national requirement.

In 1992, domestic production had increased to about 39.4 million litres representing about 71% of the estimated national requirement.

3.2.2.2 Beef Production

Cattle production on most farms on the coastal plain is a secondary agricultural activity. Therefore relatively small amounts of inputs are put into cattle production. The animals reared are dual purpose animals, used for both milk and beef production. Animals are often slaughtered to provide farmers with quick cash and for this reason farmers often refer to their cattle as a form of savings account. Farmers may also sell some cattle for slaughter during the dry season when conditions make it difficult to maintain many animals. About 70 percent of the beef produced in Guyana comes from small cattle farms on the coastland.

Table 3 shows that national beef production increased from 1,600 tons in 1985 to 3,700 tons in 1992. Between 1988 and 1990, beef production increased by 40%. A cattle and milk production survey in 1990 showed that the national herd increased by 15% for the same period (see Table 1). The increase in beef production between 1988 and 1990 seems to be a function of the increased productivity of the national herd, since the slaughtering of over 45,000 animals did not reduce the total cattle population; in fact the cattle population continued to grow.

Table 3: National Beef Production

Year	Production (Tons)	% Annual Increase
1985	1,600	-
1986	1,700	6.3
1987	1,800	5.9
1988	2,000	11.1
1989	2,400	20.0
1990	2,800	16.7
1991	3,000	7.1
1992	3,700	23.3

Source: Ministry of Agriculture, Planning Division

In contrast to this situation, the 23.3% increase in national beef production between 1991-1992 coincided with a 15% decrease in the cattle population. This increase cannot therefore be considered as a positive trend for beef cattle production in Guyana. It was a result of farmers' efforts to concentrate more effort on rice production, due to favourable market conditions for rice. Many farmers therefore significantly reduced their herd size. Death losses due to a suspected bovine rabies outbreak on the Essequibo Coast also contributed to the reduction in the national cattle population during this period.

3.2.2.3 Marketing and Processing of Milk

Marketing of milk and milk products in Guyana can be considered to be in the very early stages of development. There is no organised system for collection, processing and distribution of milk. Quality and sanitary standards are not enforced and there is no diversification in the product market.

The lack of adequate infrastructure in terms of roads, electricity and transportation, has conspired against the development of a distribution network, that would allow for the adequate handling of such a perishable product throughout the distribution chain from the producer to the final consumer.

3.2.2.4 Abattoir and Meat Plant Facilities

One of the most important constraints to Guyana's ability to export meat to other Caribbean countries is the obsolete Georgetown Municipal Abattoir, constructed in 1933, which is controlled by the Municipality of Georgetown. The slaughter of cattle, pigs and small ruminants is carried out under primitive and unhygienic conditions, which do not meet with the necessary sanitary standards for export. Besides preventing exportation, these conditions pose a health risk both to Guyanese consumers of meat and to laborers in the abattoir.

Due to inadequate facilities and equipment, cattle, pigs and sheep are slaughtered on the abattoir floor, then dragged and carried on men's backs to various work stations. The water supply and drainage are inadequate, resulting in generally unsanitary conditions. Animals are not washed before being slaughtered. Lairage facilities are inadequate and often overcrowded, resulting in bruising and the occasional escape of animals. Because chute facilities are not in place to restrain animals, ante-mortem examination is difficult or impossible. Facilities for the post-mortem inspection of heads and organs are inadequate or nonexistent. There is no system of carcass and organ identification, making disease surveillance with traceback to farm of origin difficult or impossible. According to present national regulations, post mortem examination is performed by Public Health Inspectors who are not veterinarians or veterinary technicians. As these inspectors do not have sufficient technical knowledge and as no laboratory equipment (microscope, microbiology, reagents) are available, laboratory confirmation of disease

is not possible. Inspected carcasses are manually removed and thrown on trucks, carts, vans or car trunks to be transported to markets or meatshops. Refrigerated vehicles or holding facilities are not available. Condemned organs and carcasses are transported by open carts to the city incinerator, constituting a risk to public health. There are no restricted areas in the slaughterhouse; anyone can enter and leave at will, creating the possibility of meat being disposed of illegally. Butchers and potential buyers have been observed trying to influence inspectors in decisions regarding condemnation.

4. BENEFICIARY ORGANISATION PROFILE

4.1 General Beneficiaries

The proposed project would be of direct benefit to a number of coastal livestock farmers, many of whom are presently only milking a small percentage of their cattle herd as a result of the difficulty of marketing milk at a profitable price.

A number of milk collectors would also benefit from improvement of the marketing system. It is proposed that some milk collectors be assisted in operating cooling centers. Presently, milk collectors cool their milk by placing chunks of ice in the milk containers. This reduces the quality of the milk and does not adequately cool it for transport to the milk plant in Georgetown.

Upgrading the facilities at the LIDCO Milk Plant would improve the quality and quantity of milk processed and enable more customers in the city center to readily purchase milk and milk products from retail outlets.

The establishment of an abattoir of international standards would facilitate the export of meat and meat products. This would open the door for livestock producers to be foreign exchange earners, thus increasing beef prices and profitability. This is quite likely to stimulate the interest in cattle production and promote a much needed element of diversity in the agricultural sector.

4.2 Livestock Development Company Limited (LIDCO)

The Livestock Development Company Limited (LIDCO) is a limited liability company with 15 shareholders including Guyanese Commercial Banks, Insurance Companies and Agri business organisations along with the Government of Guyana as a minority shareholder, whose mandate is the commercial development of the cattle industry in Guyana with the aim of achieving national self-sufficiency in milk and beef and eventually exports.

The Company, which is a registered joint stock company, was established as a precondition to improve the effectiveness of the Guyana Beef Cattle Project financed by the International Development Association of the World Bank. LIDCO (actually commenced operations in the latter part of 1973 with two operations (the Mara and Pirara ranches) but has grown over the years and at present the LIDCO group of eleven (11) enterprises includes five beef operations, four dairy farms, a milk processing plant and a seed paddy production unit. The company has a staff complement of approximately 200 including fourteen Managers (with two vacancies).

Guyana is self-sufficient in beef at present with a national herd of some 260,000 head of cattle. LIDCO, with a herd of approximately 13,000 heads, produces in the vicinity of 20% of national beef supplies. With beef being the cheapest form of animal protein in the country, Guyana is certainly ready to enter the export market in this commodity.

The country is not self-sufficient in milk, however. Indeed while some strides have been made in this direction (NDDP) considerable increased production is mandatory and, with the present "open economy" the marketing of locally produced pasteurised milk is proving extremely difficult with severe competition from imported milk forms (UHT and powdered milk) which are being "dumped" on the local market.

It is in these two areas of activity, the establishment of an abattoir cum feedlot that meets international standards, and the marketing of processed milk (and recommendations on the form, packaging, etc), that the company requires assistance.

4.3 National Dairy Development Programme (NDDP)

The National Dairy Development Programme (NDDP) was established in March 1984 as an Agency under the Ministry of Agriculture responsible for the promotion of National Dairy Development.

Objectives of the Programme include:

1. To increase milk production via improvements in pasture availability/management, dairy herd management and breeding policies.
2. To be instrumental in helping to improve the facilities relative to the collection, processing and distribution of milk and milk products throughout Guyana in keeping with acceptable hygiene and nutritional standards.
3. To achieve full self-sufficiency in milk products in the shortest time possible and replacing present imports with domestic production.
4. To provide an alternative and lucrative means of earning a living.

As of March 1994 the NDDP had a staff of 29 persons including the Programme Director, Senior Dairy Officer, 3 Senior Dairy Assistants, Senior A.I. Assistant, 14 A.I. Technicians and 9 Administrative staff.

Major NDDP activities undertaken by the above staff consist of:

1. The improvement of the nutritional status of the animals via grass, grass legume combinations and supplements.
2. The improvement of the predominantly creole cow towards a more high yielding animal through artificial insemination.
3. The improvement of the milk collection, procession and marketing systems.
4. The improvement of the sociological and educational processes as they relate to dairying.

5. PROJECT DESCRIPTION

5.1 Project Components

5.1.1 Milk collection system

The milk collection component of the project would be aimed at increasing production of milk from the Mahaica-Mahaicony-Abary Region of Guyana. This region is located on the coastal plain about 50 miles from the capital city Georgetown. This region has the highest concentration of cattle and produces more than 25 percent of the milk produced in Guyana. The production potential of this region is hindered by the absence of a milk marketing system.

The project component is expected to address this problem and is proposed to include the following activities:

- evaluation of possible locations for refrigerated collecting centers;
- feasibility study of operating a collection center;
- organization of farmers and milk collectors into groups, and develop management plan for cooling centers;
- evaluation of on-farm production and suggesting of methods for improving milk storage and handling practices, and
- recommendations for milk collection and transport to and from the cooling centers.

5.1.2 Modernization of Processing and Marketing System

The modernization of the LICDO Milk Plant would involve the following activities:

- analysis of market and market opportunities making recommendation as to products and volumes to be produced;
- an assessment of the existing facilities at the Plant in view of determining best options for processing and expansion of operations considering the capital investment required for installing modified pasteurizing equipment or UHT facilities and to facilitate product diversification;
- feasibility study of the proposed upgraded operation.

5.1.3 Establishment of a modernized abattoir

The establishment of an abattoir of internationally accepted standards would involve the following activities:

- evaluation of existing abattoir, beef production and marketing systems.
- estimation of capacity/meat processing facilities and equipment required for new abattoir;
- determine new abattoir location;
- design and plans;
- export and domestic marketing arrangements and public health related matters;
- personnel requirement - recommendations for training program, and
- preparation of feasibility study document.

6. ADDITIONAL COMMENTS

- 1) The volunteers would work in collaboration with technicians from IICA, CARDI (Caribbean Agricultural Research and Development Institute, the Ministry of Agriculture, NDDP (National Dairy Development Program) and LIDCO (Livestock Development Company).

- 2) The volunteer counterpart will be Charles Carmichael, Agricultural Economist, Peter Davis, Livestock Productionist and Sandra Vokaty, Animal Health Specialist at IICA Office in Guyana.
- 3) Logistical support will be coordinated by Jerry LaGra, IICA Representative in Guyana.

7. DESIRED VOLUNTEERS PROFILE

It is recommended that a team of three VOCA volunteers be assigned to this project. The team should include a Meat Processing Specialist, a Food Technology Engineer with specific expertise in dairy processing and marketing and an Agricultural Economist.

Terms of references for Meat Processing Specialist.

1. At least a M.Sc degree in Meat processing technology.
2. At least five years experience in slaughter and meat processing plants.
3. A sound knowledge of the international regulations regarding slaughter and meat processing plants.
4. Adequate skills in the designing of meat plants and the selection of the adequate equipment based on international and national standard regulations.
5. Language required: English

Terms of reference for Food Technology Engineer

1. At least ~~M.Sc~~ M.Sc degree in the relevant discipline.
2. At least five years experience in dairy processing technology and dairy management.
3. Working experience in a dairy plant producing diversified dairy products.
4. A knowledge of milk marketing systems, including the operation of cooling stations.
5. Language required: English.

Terms of reference for Economist

1. At least a M.Sc degree in Economics or Agricultural Economics.
2. A good knowledge of beef and dairy cattle production in tropical environments.
3. At least five year experience in project formulation and feasibility studies particularly with regards to agricultural production.
4. The volunteer should have experience with milk production/marketing cooperatives.
5. Language required: English.

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SCOPE OF WORK
March 24, 1994)

I. **TITLE:** AGROINDUSTRIAL IMPROVEMENT
COUNTRY: Guatemala
START DATE: August 1st 1994
LENGTH OF ASSIGNMENT: Six (6) Weeks

**SUMMARY OF
ASSIGNMENT**

The Fruit and Vegetable Development Program -PROFRUTHA- has requested the services of a VOCA Volunteer to assess them in fruit and vegetable processing. The main objective of this assignment will be to improve the process of preparation, formulation, transformation and management of processed material.

II. **REQUESTING**

ORGANIZATION: FRUIT AND VEGETABLE DEVELOPMENT PROGRAM -
PROFRUTHA-

ADDRESS: 3a Calle 6-11 zona 9,
Oficina 607-611, Planta Baja
Guatemala, C.A.

PHONE/FAX: (502)2 318219 319267
(502)2 3273606 (tel.fax)

CONTACTS: **PROFRUTHA**
Ing. Jorge Escobar -Executive Director-
Ing. Jorge Prado -Agro-Industry Unit
Coordinator-

VOCA/IAC
Jorge Salzar/Reyna De León de C.
(502)2 318642
(502)2 345895 (fax)

II. Target Organization Profile

The Fruit and Vegetable Development Program was established in 1989, as an effort made by the Ministry of Agriculture, Livestock and Food for the establishment and improvement of fruit trees plantations. The above is a response to a limited commercial exploitation of said species in Guatemala.

The Program is responsible for generating and carrying out projects to support fruit development in the different weather and land conditions that the country offers.

The Program's area of action has been primarily focused in tropical zones (0-800 m.a.s.l.) where tropical species have been upgraded. Among these species the following ones can be mentioned: mango, papaya, pineapple, citric and others. Additionally, the Program has covered to a lesser degree the Central and Western Highlands, where the weather ranges from lukewarm to cold and where plantations of temperate climate fruit tree, raspberries, blackberries, etc. have been promoted.

The Program has established a strong vertical and horizontal organizational structure in order to carry out its activities. The vertical organization is based on five basic components:

- a. Extension and Technology Transfer;
- b. Production of Vegetative Material;
- c. Training of Technical Personnel; and
- d. Applied Research.

The horizontal organization consists on the delimitation of the geographical areas that the program covers in work regions with the same characteristics. In these regions controlled and supervised actions are developed by specific personnel assigned to each of them.

Jointly with the actions aimed at the establishment of new plantations of fruit trees and the improvement of existing ones, the Program has established a specific project for Fruit and Vegetable Industrialization and Marketing with the idea of promoting agro-industries.

III. Industrialization and Marketing of Fruits and Vegetables Project Background

This Project is intended to promote small agroindustrial plants supported and managed by the same producers. In order to achieve its purposes the project has two basic components:

- a. **Promotion and Motivation:** The primary objective of this component is to motivate individuals and organized groups through their participation in training

and demonstrations of industrial processes.

These agroindustrial processes include:

1. **Bottled Products:** Marinated vegetables, jellies, marmalades, syrups, juices, nectars, etc. made of fruits such as apple, peach, pear, plum, mango, pineapple, papaya, raspberry, blackberry, etc. and from a variety of vegetables.
2. **Dehydrated Products:** fruits and vegetables. To develop these agroindustrial processes, the project has a portable bottler plant (capacity: 275 kg/hour), a fixed bottler plant (capacity: 275 kg/hour) located in the Central Highlands of Guatemala and a dehydrator plant (capacity: 180 kg/hour) located in the Western Highlands of the country.

b. **Marketing and Technical Assistance**

Through this component, technical assistance services are provided to the fruit producers. These services include the development of feasibility studies, productive process research and market research.

IV. **Project Description:**

The Fruit and Vegetable Development Program -PROFRUTHA- has requested the services of a VOCA Volunteer to assess them in fruit and vegetable processing. The main objective of this assignment will be to improve the process of preparation, formulation, transformation and management of processed material.

The following is a brief description of the areas of work that the VOCA Volunteer will be asked to carry out:

1. *Evaluate the present conditions of each of the 3 plants, including their housing, processing equipment, reception centers, etc.*
2. *Determine the potential to improve the quality and efficiency of the current and potential productive processes within the different lines of production.*
3. *Provide recommendations regarding means to reduce production costs without affecting quality standards.*
4. *Facilitate a training process (theoretical and practical) to the technical personnel assigned to each plant in the phases of preparation, formulation, processing, management, etc. of the different products processed by the Program. (For this*

purpose a detailed work-plan will be designed between the Volunteer and the Technical Director of the Program).

5. Research and provide appropriate recommendations regarding the upgrading and diversification of fruit and vegetable processing technologies.
6. Suggest appropriate means to improve the storage of the products obtained in the plant using refrigeration and environmental controls techniques.
7. Develop a final report, directed to PROFRUTHA, in which final observations, conclusions and recommendations will be detailed.

V. Description of Guatemala:

Guatemala (108,889 square Km.), is the most populous of the Central American republics and the only one which is largely Indian in language and culture. Two-thirds of its territory is mountainous and 38% is forested. It has coastlines on the Pacific (240 km.), and on the Caribbean (110 km.).

About 55% of the total population (9.2 m in 1990) are Amerindian, while 4% are ladino and only 3% black or white. Birth rate: 39.3 per 1,000; infant mortality, 46.6 (1988); population growth: 2.9%. UN statistics show that 87% of the population live in poverty and 7% cannot afford a minimum diet. The indigenous people of Guatemala are mainly of Maya descent. There are 22 recognized language groups of the Guatemalan Maya, with 100 or more dialects.

A lowland ribbon, nowhere more than 50 km. wide, runs the whole length of the Pacific shore. Cotton, sugar, bananas and maize has been the traditional crops of this lowland. From this plain the highlands rise sharply to heights of between 2,500 and 3,000 meters and stretch some 240 km. to the N before sinking into the northern lowlands. A string of volcanoes rise boldly above the southern highlands along the Pacific. There are intermont basins at from 1,500 to 2,500 meters in this volcanic area. Most of the people of Guatemala live in these basins, drained by short rivers into the Pacific and by longer ones into the Atlantic rainfall.

The lower slopes of these highlands, from about 400 to 1,500 meters are planted with coffee. Above 1,500 meters is given over to wheat and the main subsistence crops of maize and beans. Deforestation is a serious problem. The climate, which depends upon altitude, varies greatly. The pronounced rainy season in the highlands is from May to October; the dry season from November to April. Frost is common from December thru February.

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The equitable distribution of occupied land is a pressing problem. According to the 1979 census, there were 531,636 farms, of which 54% were less than 1.2 hectares, 34% were of under 7 hectares, while less than 1% were of more than 900 hectares.

In international trade the focus is still heavy on agriculture, which accounts for two thirds of total exports. Coffee is the largest export item, followed by sugar, but bananas, sesame and cardamom are also important crops. There has been an attempt to diversify agricultural exports with a consequent increase in tobacco, vegetables, fruit, ornamental plants, and beef exports.

The industrial sector has been growing steadily; these include rubber, textiles, paper and pharmaceuticals, chemicals, furniture, petroleum products, electrical components and building materials are also produced. The encouragement of "maquila" industries in the mid-1980's has attracted foreign investment, much of it from the Far East and has created low-paid jobs for about 80,000 guatemalans, mostly in garment manufacturing. "Maquila" exports rose from US\$20m in 1986 to nearly US\$207m in 1990.

Historically, Guatemala has had one of the most unstable political environments in the hemisphere. Most recently, during the months of April and May of 1993, a series of social crises provoked 3 coup de tat's within a 13 day period. With the Congressional election of Ramiro de Leon Carpio (former Human Rights Ombudsman) on the 6th of June, a new era of hope and has begun.

However, this democratic transformation will continue to encounter a variety of barriers: unemployment, lack of basic services, high levels of corruption and drug trafficking/money laundering. At the beginning of 1994, the guatemalan government and the hemisphere's oldest insurgency movement have recommenced a negotiation process to subscribe a peace agreement.

VI. Additional Comments

1. The Volunteer is encouraged to come prepared with available didactic materials (slide shows, videos, pamphlets, etc.) that may help the assignment.
2. The volunteer's counterpart will be Mr. Jorge Prado (Technical Director of the Project of Agroindustry and Marketing).
3. The Volunteer will be asked about lyophobic processes. As such, if possible, the gathering of information on the process would be greatly appreciated.
4. The volunteer will be located in three cities: Guatemala, Quetzaltenango and Jalapa where good accommodations can be found.

SCOPE OF WORK
(June 6, 1994)

- I. TITLE: BERRIES PRODUCTIONS PROCESS IMPROVEMENT
- COUNTRY: Guatemala
- START DATE: August 15th 1994 or sooner
- LENGTH OF ASSIGNMENT: Six (6) Weeks

SUMMARY OF
ASSIGNMENT

The Fruit and Vegetable Development Program - PROFRUTHA- has requested the services of a VOCA Volunteer to assess them in the field production process improvement of the following crops: Blackberry, Raspberry and Blueberry. The main objective of this assignment will be to conduct a training process directed to the technical personnel of PROFRUTHA, regarding the different agricultural cares to be considered to improve the productivity of the mentioned crops.

II. REQUESTING

ORGANIZATION: FRUIT AND VEGETABLE DEVELOPMENT PROGRAM - PROFRUTHA-

ADDRESS: 3a Calle 6-11 zona 9,
Oficina 607-611, Planta Baja
Guatemala, C.A.

PHONE/FAX: (502)2 318219 319267
(502)2 3273606 (tel.fax)

CONTACTS: PROFRUTHA
Ing. Jorge Escobar -Executive Director-
Ing. Eddy Martínez -Technical Director-

VOCA/LAC
Jorge Salazar/Reyna De León de C.
(502)2 318642
(502)2 345895 (fax)

III. Target Organization Profile

The Fruit and Vegetable Development Program was established in 1989, as an effort made by the Ministry of Agriculture, Livestock and Food for the establishment and improvement of fruit trees plantations. The above is a response to a limited commercial exploitation of said species in Guatemala.

The Program is responsible for generating and carrying out projects to support fruit development in the different weather and land conditions that the country offers.

The Program's area of action has been primarily focused in tropical zones (0-800 m. a.s.l) where tropical species have been upgraded. Among these species the following ones can be mentioned: mango, papaya, pineapple, citric and others. Additionally, the Program has covered to a lesser degree the Central and Western Highlands, where the weather ranges from lukewarm to cold and where plantations of temperate climate fruit tree, raspberries, blackberries, etc. have been promoted.

The Program has established a strong vertical and horizontal organizational structure in order to carry out its activities. The vertical organization is based on five basic components:

- a. Extension and Technology Transfer;
- b. Production of Vegetative Material;
- c. Training of Technical Personnel; and
- d. Applied Research.

The horizontal organization consists on the delimitation of the geographical areas that the program covers in work regions with the same characteristics. In these regions controlled and supervised actions are developed by specific personnel assigned to each of them.

Jointly with the actions aimed at the establishment of new plantations of fruit trees and the improvement of existing ones, the Program has established a specific project for Fruit and Vegetable Industrialization and Marketing with the idea of promoting agro-industries.

IV. Fruit Trees Production Development Project Description:

This Project is intended to offer to the farmers different options to diversify their agricultural productions through fruit crops with high rates of profitability. The production of exportable volumes that gather high quality and competitive levels in the international market is pursued.

Within the services provided through this Project are included:

a. **Technical Assistance:**

This services are oriented to the establishment of new plantations, design and management of sanitary plans, fertilization, general cares, field inspections, post-harvest management and connections between buyers and producers.

b. **Nursery Establishment:**

The project provide orientation to the establishment of private fruit trees nurseries and their appropriate management. also the project has their own nurseries to produce and provide high quality plants for the establishment of new plantations.

c. **Research:**

Through specialized technicians the project detect problems or situations that limit the quality and quantity in the fruit production, and state studies of applied researching for the solution of said problems/situation.

Through the project technical assistance is provided for the following crops: Mango, Cashew, Avocado, Blackberry, Raspberry, Apple, Peach, Pear, Orange, Lemon, Grape, Papaya, Sapodilla, and other tropical fruit.

IV. **Project Description:**

The Fruit and Vegetable Development Program -PROFRUTHA- has requested the services of a VOCA Volunteer to assess them in the field production process improvement of the following crops: Blackberry, Raspberry and Blueberry. The main objective of this assignment will be to conduct a training process directed to the technical personnel of PROFRUTHA, regarding the different agricultural cares to be considered to improve the productivity of the mentioned crops.

The following is a brief description of the areas of work that the VOCA Volunteer will be asked to carry out:

1. *Conduct meetings with the Executive Director, Technical Director and other technical personnel of PROFRUTHA to develop a specific work plan (a preliminary work plan will be presented to the Volunteer at his/her arrival to the country).*
2. *Become familiar with the work area. This will be accomplished through meetings held with the PROFRUTHA personnel in the national and regional*

offices, as well as visits to the respective farms and to local Agro-industries that are processing this type of crops.

3. During a four-week period provide a series of on-farm workshops to local producers. During this time, recommendations will be provided to improve the proceedings used to plant, cultivation practices, harvest and post-harvest technical procedures with the purpose of increasing their productivity and efficiency. During these workshops, the following aspects should have special emphasis:

- Proper practices to plant this crop applying the appropriate technology;
- Fertilization requirements;
- Principal Pests and diseases that affect economically this crop;
- New varieties which could be recommended to be introduced to the country;
- Irrigation requirements;
- Other cultural practices; and
- Harvest and post-harvest practices, etcetera.

4. During these same workshops discussions will take place regarding advantages/disadvantages of different mechanism to trade their production.

5. The volunteer will be expected to design a basic agronomical plan for the crop production as well as for the harvest and pos-harvest management.

6. To provide orientation to make a characterization of potential areas for the introduction of the Blueberry crop.

7. Facilitate a national Seminar directed to private producers and technicians working in related fields, regarding the international market situation, varieties with high demand in the international market (USA and Europe) and with potential to be produced under the climate and soil conditions existing in Guatemala.

8. Develop a final report, directed to the beneficiary organization, detailing final observations, conclusions, recommendations and needed areas for follow-through.

It should be noted that all of the above detailed objectives will be carried out in conjunction with the Volunteer counterpart from the Beneficiary Organization, who will be assigned to this project on a full time basis.

V. Description of Guatemala:

Guatemala (108,889 square Km.), is the most populous of the Central American republics and the only one which is largely Indian in language and culture. Two-thirds of its territory is mountainous and 38% is forested. It has coastlines on the Pacific (240 km.), and on the Caribbean (110 km.).

About 55% of the total population (9.2 m in 1990) are Amerindian, while 4% are ladino and only 3% black or white. Birth rate: 39.3 per 1,000; infant mortality, 46.6 (1988); population growth: 2.9%. UN statistics show that 87% of the population live in poverty and 7% cannot afford a minimum diet. The indigenous people of Guatemala are mainly of Maya descent. There are 22 recognized language groups of the Guatemalan Maya, with 100 or more dialects.

A lowland ribbon, nowhere more than 50 km. wide, runs the whole length of the Pacific shore. Cotton, sugar, bananas and maize has been the traditional crops of this lowland. From this plain the highlands rise sharply to heights of between 2,500 and 3,000 meters and stretch some 240 km. to the N before sinking into the northern lowlands. A string of volcanoes rise boldly above the southern highlands along the Pacific. There are intermont basins at from 1,500 to 2,500 meters in this volcanic area. Most of the people of Guatemala live in these basins, drained by short rivers into the Pacific and by longer ones into the Atlantic rainfall.

The lower slopes of these highlands, from about 400 to 1,500 meters are planted with coffee. Above 1,500 meters is given over to wheat and the main subsistence crops of maize and beans. Deforestation is a serious problem. The climate, which depends upon altitude, varies greatly. The pronounced rainy season in the highlands is from May to October; the dry season from November to April. Frost is common from December thru February.

The equitable distribution of occupied land is a pressing problem. According to the 1979 census, there were 531,636 farms, of which 54% were less than 1.2 hectares, 34% were of under 7 hectares, while less than 1% were of more than 900 hectares.

In international trade the focus is still heavy on agriculture, which accounts for two thirds of total exports. Coffee is the largest export item, followed by sugar, but bananas, sesame and cardamom are also important crops. There has been an attempt to diversify agricultural exports with a consequent increase in tobacco, vegetables, fruit, ornamental plants, and beef exports.

The industrial sector has been growing steadily; these include rubber, textiles, paper and pharmaceuticals, chemicals, furniture, petroleum products, electrical components and building materials are also produced. The encouragement of "maquila" industries in the mid-1980's has attracted foreign investment, much of it from the Far East and has created low-paid jobs for about 80,000 Guatemalans, mostly in garment manufacturing. "Maquila" exports rose from US\$20m in 1986 to nearly US\$207m in 1990.

Historically, Guatemala has had one of the most unstable political environments in the hemisphere. Most recently, during the months of April and May of 1993, a series of social crises provoked 3 coup de tat's within a 13 day period. With the Congressional election of Ramiro de Leon Carpio (former Human Rights Ombudsman) on the 6th of June of 1993, a new era of hope and has begun.

However, this democratic transformation will continue to encounter a variety of barriers: unemployment, lack of basic services, high levels of corruption and drug trafficking/money laundering. At the beginning of 1994, the Guatemalan government and the hemisphere's oldest insurgency movement have recommenced a negotiation process to subscribe a peace agreement.

VI. Additional Comments

1. The Volunteer is encouraged to come prepared with available didactic materials (slide shows, videos, pamphlets, etc.) that may help the assignment. Spanish language materials are preferred, but not essential.
2. The volunteer's counterpart will be Ing. Eddy Martinez -Technical Director-
3. The Volunteer will be based in Guatemala City, but will be traveling around rural area of the country. The climate conditions throughout the country during the assignment duration will be variable (hot and cold) and humid with frequent rains. Appropriate rain gear and hot and humid climate clothing advised. Women can wear slacks.
4. A meeting with the Agricultural Sector Officer in the AID/Mission is recommended. The volunteer is not advised to bring suits or formal dresses, but there may be an occasion to wear a tie.

VII. DESIRED VOLUNTEER PROFILE:

The ideal volunteer for this assignment would have to have the following characteristics:

- Possess a strong background in the Production, harvest and post-harvest management of the crops included din this project.

- Have experience providing and organizing the delivery of services of technical assistance for the above mentioned crops.
- Experience working with organizations which support small and medium size agricultural producers.
- The Volunteer should have a personality that allows, facilitates and promotes the interchange of knowledge, through a participatory process.

NOTE:

This Scope of Work has been translated by Laura Gómez who is not a native English speaker. Please excuse any grammatical or spelling error. THANKS A LOT.

SCOPE OF WORK

"FINANCIAL ANALYSIS OF MINI-SETT YAM PRODUCED FOR EXPORT"
and
"MARKETING FEASIBILITY OF MINI-SETT YAM FOR EXPORT"
in support of the

NATIONAL YAM EXPORT DEVELOPMENT PROJECT
AGRICULTURAL EXPORT SERVICES PROJECT/Project Management Unit
JAMAICAN EXPORTERS' ASSOCIATION

TARGET ORGANIZATIONAL PROFILE:

The Agricultural Export Services Project (AESP) was begun in 1990 as a project jointly funded by the Government of Jamaica and the United States of America (through the Agency for International Development-USAID). The project channels its resources through sub-grantees (composed of cooperatives, producer groups, and other private agribusiness groups and other private and public sector entities) who provide services that are designed to achieve the following goals:

- * improve and increase the range and volume of the crops produced
- * improve the quality of export production
- * increase and improve the quality of export services

The AESP is designed to provide funding for both traditional and non-traditional crops. In Jamaica, the range of traditional crops include: bananas, citrus (oranges and mandarins), cocoa, coffee, and sugarcane. Non-traditional crops include, but are not limited to: tropical fruits (papaya, mango), yams, ornamental horticulture (anthurium), spices, and other vegetables.

Project funding is for a total of US\$16 million, with US\$10 million provided through USAID, and US\$6 million by the Jamaican government. The project is past the halfway mark in terms of funds disbursed and life (project phase-out is scheduled for 1996). The project portfolio is currently being revised by means of a technical review board called the Project Coordinating Committee (PCC) made up of representatives from the Ministry of Agriculture and its Project Management Unit (PMU), the Jamaican Exporters' Association (JEA), and a USAID representative, who is a sitting member. The Chairman of the PCC is Mr. Clarence Franklin, who is also the Permanent Secretary to the Ministry of Agriculture. There are currently several sub-grantees receiving assistance under the AESP:

- *Western Banana Development Corporation
- *Tryall (Port Antonio) Banana Corporation
- *Non-Blue Mountain Coffee Growers
- *Richmond Fermentary (Cocoa/Coffee)
- *National Yam Export Development Project

The AESP project is coordinated by a Project Management Unit (the above-mentioned PMU) located in the Ministry of Agriculture. The staffing is currently made up of 2 full-time staff; Project Manager Mr. A.C. Allen, and a Technical Advisor, Mr. Earl Guise. It is expected that a Deputy Project Manager will be hired in the near future. 2 staff

The Jamaican Exporters' Association (JEA) was formed in 1965 to represent the interests of the exporter community, particularly with regard to government export and development policy, and to promote exports as a central strategy of economic development.

In early May of 1994, VOCA signed a cooperative agreement between the Government of Jamaica (represented by the Ministry of Agriculture), the JEA, and the Government of the United States of America (represented by USAID) to provide short-term technical assistance to the project's sub-grantees on a demand basis.

PROJECT OVERVIEW

Agriculture and natural resources in Jamaica is an important productive sector in the economy of Jamaica. The sector provides nearly 8% of the GDP, employs 27% of Jamaica's labor (approximately 150,000 farm families are directly supported by agriculture), and 14% of the country's export earnings. After bauxite and tourism, agricultural exports comprise the third largest source of foreign exchange, amounting to US\$170,924,000 in 1991. In 1993, traditional exports (sugar, bananas, coffee, citrus) have earned US\$162.8 million, while non-traditionals (ornamentals, yams and other tubers, tropical fruits) earned US\$31.4 million. The category of non-traditional crops has become an area of major focus within the farming sub-sector, showing an increase in performance by 15.9% in export volume over 1991.

Over the past 15 years; however, the growth rate of Jamaica's agricultural sector has been less than expected. In an effort to reverse this, it was felt that innovative methods had to be exploited and introduced to encourage production. The Jamaica Agricultural Export Services Project was designed specifically for this purpose. The effectiveness of the project lies in using available and new methods to enhance the productivity and also improve and expand export related-services.

The National Yam Export Development Sub-Project is an integral component to the AESP. The Sub-Project aims at increasing the export of yams by promoting an improved production system based on the "Mini-Sett" technique, which was developed in Nigeria at the International Institute for Tropical Agriculture (IITA) and introduced

to Jamaica by the IITA in 1985 under a joint Government of Jamaica/Univ. of the West Indies/IITA Root Crop Project.

Mini-Sett is a new technology for growing yam for the export market. In traditional yam cultivation, the yam heads of large yams must be removed before exporting. In Mini-Sett technology however, small, whole yams can be produced that are more uniform in shape and do not need to be treated with chemicals before they are exported. Mini-Sett can also be grown on hillsides, make better use of planting materials so that more yam is harvested (yields using mini-sett technology are at 35,000-40,000 lbs. per unit acre compared to 10,000-12,000 lbs. obtained from traditional methods of technology), and does not require the large sticks that are used for traditional yams. The yams have the advantage of having a longer shelf-life as they are whole/uncut and do not have the "hollowing" frequently found in larger yams. Mini-Sett yams are in the size range of 0.3 to 2.0 kg. and are sold as whole tubers. They are available year-round and packed in 20.5 kg. boxes, usually in sawdust or coconut fiber to protect during shipment. They have a shelf-life of 2-3 months and can be boiled, baked, roasted, scalloped, or mashed, much like potatoes.

The principal agencies encharged with implementing the project are the Inter-American Institute for Agricultural Cooperation (IICA), RADA (Rural Agricultural Development Agency, which operates as the government extension service), JAMPRO (the Jamaican Promotions Corp.), and more specifically, a department of JAMPRO, known as JETCO, the MOA's PMU, and the JADF (Jamaican Agricultural Development Foundation).

The first phase (3 years) of the project is scheduled to phase-out in October '94. The specific objectives of the project were the following:

- promote general adoption of the Mini-Sett technique by 1000 farmers
- substitute 500 acres of traditional production with Mini-Sett
- increase yam exports by 20%

Using data gathered by RADA, the results of the project's phase were the following:

*over 1500 farmers have adopted the technology, with over 200 being involved with the method of production for over one year

*preliminary data suggesting upwards of 300 acres have been substituted

*exports of the commodity in 1992 was 13,374,000 kg, reflecting a 50% increase over the 8,931,000 kg. exported in 1989. The 1992 figure also shows a 19% increase over those of 1990. (in 1993, JETCO, the only company exporting mini-sett yams on a significant level, exported 26,884 lbs.).

Subsequent reviews made by the AESP Technical Advisor and others suggested that there seemed to be a sufficient amount of interest evinced by producers to continue the project and that an extension of the project through IICA and RADA should be considered.

Based on these evaluations, there was an official request by RADA to extend funding for the program for an additional 3 years.

It is against these generally optimistic indicators, however; that a few recommendations were made to warrant extension of the project. During the first phase, the original program consisted mainly of teaching the technology to farmers through demonstration plots focusing on the parishes of Clarendon, Manchester, Trelawny, St. Ann, St. Catherine, St. Andrew, and Hanover.

There was no marketing component, nor was there a comprehensive financial/cost analysis done to determine whether producing Mini-Sett yams for export was a financially sound undertaking. There are several market evaluations; primarily in the Bull Ring Wholesale Market in Birmingham, England, and shorter reports on the problems exporters face, but there is no relation of data relating exportable quality yields, money returns, market acceptance, and other relevant historical data that could provide a sounder basis on which to base future funding or other activities.

The current marketing strategy targets the "ethnic markets" of North America and the UK and has not examined nor pursued any niche markets outside of that or attempts to investigate other cross-over potential. It will also be necessary for any marketing study to provide a review of promotional options.

PROJECT OBJECTIVES

Given the above, the Jamaican Exporters' Association, in coordination with the AESP/Project Management Unit; has requested the services of two VOCA Volunteers to assist in perform a comprehensive financial analysis of producing the Mini-Sett yam for export, and another to provide a comprehensive market feasibility study on Mini-Sett yam for export. If at all possible, the projects should be carried out simultaneously, or allow the two volunteers to spend at least one to two weeks together in the field, with the marketing feasibility volunteer preceding the financial analyst.

It should be mentioned that the bulk of the actual production technology was carried out by RADA, with IICA being the financial manager during the first phase of the project.

For the second phase of the project, it is envisioned by IICA that small farmers (holdings up to 10 acres) will be the main target beneficiary group. How to

incorporate that sector into producing for economies of scale and organizing (there is currently no Yam Producers' Association) will be an important objective to be realized. IICA's plans are to hook up small farmers with a network of exporters (4-5 exporters have already been contacted), where the farmers and exporters would enter into a satellite contract farming arrangement where the exporters would be liable for providing the inputs (including training). The contract would have the farmer receiving a set farm gate price less the costs of inputs provided by the exporter. The proceeds would go into a revolving fund to support the creation of a Yam Growers' Association. IICA would initially be monitoring the revolving fund until the creation of the growers' group would come into being. It should be mentioned however, that "contract farming" in Jamaica does not have a very successful history.

The project objectives to be realized are as follows:

1) Upon arrival, conduct extensive interviews with representatives from the JEA, AESP/PMU, IICA, RADA, JAMPRO, and Kingston-based yam exporters. The Agricultural Marketing Corporation (AMC-Mrs. Rita Sands is a primary contact there) packing and handling facilities should be included, as well as facilities at Kingston Airport. Reports already completed should be consulted (a bibliography of reports available is attached to on the following pages).

2) Conduct field visits to a spectrum of yam producers for interviews and observations of production/supply capacity. (One of the more active producers, Mr. Richard Khourrie, of Mandeville should be included in any visit).

3) For the Marketing Feasibility Volunteer, draft a comprehensive report directed to the JEA and PMU determining whether a viable export market exists for mini-sett yams which should address at a minimum the following:

*Jamaica's competitive advantage/disadvantage on the world market vis-a-vis other miniset yam-producing countries (Costa Rica, France)

*Packaging, post harvest-handling, and promotional (e.g. labeling) recommendations

*Accessing/cross-over potential to other niche markets and alternative marketing centers

*Substitute product comparisons

For the Financial Analysis Volunteer, draft a comprehensive report directed to the JEA and PMU which should provide a cost analysis of production based on market price inputs, post-harvest handling prices (treatment plants, packing plants), establishment of a time-line, and determination of other cost inputs (labor, etc.).

The reports should be completed prior to leaving Jamaica.

4) Present the findings at a seminar to be held before representatives of the JEA, AESP/PMU, IICA, RADA, JAMPRO, USAID, and yam exporters.

It will be essential for the VOCA Volunteers to begin collecting data prior to departure to Jamaica on project.

The VOCA Volunteers should be briefed by both the VOCA Program Officer in Washington, DC prior to departure and the USAID Project Officer upon arrival. The VOCA Volunteers should also be debriefed in-country and in Washington, DC upon return to the USA.

Length of project is estimated at 3-4 weeks.

The VOCA Volunteers will be based out of Kingston at either the Courtleigh Hotel, or at a full-service apartment (located adjacent to the Courtleigh) subject to preference and/or availability. The Volunteers should expect to be spending the night in secondary cities/towns as their in-country schedule calls for. Accommodations will most likely be in hotels or guest houses in that case. All addresses are located on the contacts page (last page) of this scope of work.

COUNTRY DESCRIPTION (please refer to the Country Information Section of the Briefing Book for a more comprehensive treatment of the country)

History

Jamaica has a rich and varied history beginning even before the arrival of Columbus in 1494, when the country was occupied by the Arawak Indians. The Island was captured from the Spanish by the British in 1655 and remained under direct British rule until political independence was granted in 1962.

Jamaica has a Westminster style constitution, with a Governor-General as the representative of the British Crown, and a bicameral Parliament. There is a House of Representatives consisting of elected representatives appointed by the Prime Minister and the Leader of the Opposition. The government is headed by a Prime Minister, who is required to consult with the Governor-General and the Leader of the Opposition on certain matters.

There are two major political parties, the JLP (Jamaican Labor Party) and the PNP (People's National Party); which have historically alternated power. From 1980-89, the JLP held office. They pursued a laissez-faire free market policy through the urging of the IMF, World Bank, and USAID. Because of a special political relationship with the Reagan administration, Jamaica received a relatively large outpouring of US assistance in the first half of the decade. The economy was substantially deregulated, the currency was devalued, and many public enterprises

were divested in the process of adjustment, which has now been on-going for some 14 years.

The eighties saw the development of free-zone manufacturing, especially of garments for export to the USA, the gradual recovery of bauxite/alumina production, and the rapid growth of tourism from North America. In the process, the traditional international economic relations, particularly with the USA, were strengthened at the expense of regional relations, such as Caricom trade.

In 1989, the PNP, led by the Honorable P.J. Patterson became the new government, and has continued the policies of the 1980's. Exports have been strongly encouraged in all sectors, and deregulation of the economy continues.

The Island and its' People

Jamaica is 235 kilometers long, and 82 kilometers at the widest point for a total area of 11,000 square kilometers. It lies in the Western Caribbean about 970 kilometers south of Miami, and 970 kilometers north of Panama, making it centrally located on the on shipping routes going through the Canal.

The population of Jamaica was 2.4 million in 1991, with an average annual growth rate of 1.1% from 1980-1991. Approximately 45% of the people are under 19 years of age, and a little less than 8% being above the age of 65. Based on the census of 1982, at least 48% of the population is urban; in 1943, the census estimated the urban population at that time to be 15%.

In the 1980's, net emigration, mainly to the USA, Canada, and the UK has averaged about 17,500 per year. The Jamaican expat community in the USA and the UK of 500,000 in each country at present. Remittances from these immigrants constitute an important part of private capital inflows, and of consumer imports annually.

The vast majority of the population is of African descent, but there are well established Indian, Chinese, Arab, and European communities as well. Christianity in its various denominations, is the religion of the vast majority of the population.

There are two international airports on the Island, Norman Manley in Kingston, and Sangster, in Montego Bay. They can both handle 747 aircraft. There are twelve active ports, the largest and most modern being Kingston (the seventh largest natural port in the world), which handles 80% of the incoming trade. Four of the other ports handle largely agricultural trade.

Jamaica has one of the most developed roads systems in the region. With about 13,000 kilometers of road, Jamaica has an average of 1.2 kilometers of road per square kilometer. Road transport is the primary mode of domestic transport for both people and freight; very little domestic produce is carried by railroad (there is 325 kilometers of track on the Island).

Agriculture

The main agricultural based exports are sugar, bananas, and coffee. In the 1980's, there was a rapid growth of non-traditional exports, targeted largely at ethnic communities overseas. Some doubts about the future of sugar and bananas have been generated by the unification of the European market which threatens traditional preferential arrangements enjoyed by Jamaica in the UK market.

The social structure in agriculture is still based on the traditions forged from the colonial experience. Approximately 82% of farmers are small farmers operating on 5 or less acres of land. The more fertile plains remain enclosed in large farms, some of which are government-owned sugar estates, and more recently, high-tech farms producing winter vegetables for the North American market.

Domestic agriculture has always played a stabilizing role for the economy as a whole. It has performed well, even in periods of over-all economic decline. Domestic food crops are grown primarily by small farmers. In recent years these farmers have faced stiff competition from cheap imports of food and from the rejected produce of the large export projects, especially winter vegetables, dumped on the local market. In 1988, Hurricane Gilbert did severe damage to the sector, but it has recovered quickly.

Food production is the largest sub-sector of manufacturing, with some 19.1% of total manufactured output in 1990. If sugar is included, the figure rises to 22.1% of that same year. The vast majority of output, with the exception of sugar, is sold on the local market. Sugar is exported primarily to the UK, the EEC, and the USA; most other manufactured products are sold on the Caricom (Caribbean Community) market.

CANDIDATE PROFILE

The ideal candidate(s) will have the following qualifications:

For the Financial Analyst

- *Background in Financial Analysis in the vegetable/fruit production market
- *Minimum 15 years of experience in domestic US and international financial sector
- *Minimum M.A. in Finance or Economics
- *Should have knowledge of Latin America & Caribbean regions

For the Marketing Study Volunteer:

- *Background in Marketing with strong aptitude in Promotion of vegetable/fruit sector
- *Ideally would have experience in product introduction into new market in North America from LAC region
- *Minimum 15 years experience in domestic/international marketing
- *Should have knowledge of Latin America & Caribbean regions

Contact Sheet

VOCA/Washington

Dennis J. Diligent
Program Officer
50 F. St., NW, Suite 1075
Washington, DC 20001
tel: 202-383-4961
fax: 202-783-7204

USAID/Jamaica

Mrs. Jennifer Rousseau
Project Officer
USAID/Jamaica
6B Oxford Rd.
Kingston 5
tel: 809-926-3645-9
fax: 809-929-3750 or 2

AESP/PMU Jamaica

Mr. A.C. Allen
Project Manager, AESP
Ministry of Agriculture
Hope Gardens
Kingston 6
tel: 809-927-1872
fax: 809-927-1872

Jamaican Exporters' Association

Mrs. Beverley Morgan
Director

13 Dominica Dr.
Kingston 5
tel: 809-929-3831 or 929-1292
fax: 809-929-3831

Inter-American Institute for Cooperation on Agriculture (IICA)

Mrs. Hyacinth Chin-Sue
Technical & Administrative Coordinator
11 Fairway Ave.
Kingston 5
tel: 809-927-6462 or 927-4837 or 978-0781

ACCOMMODATIONS

Courtleigh Hotel
31 Trafalgar Rd.
Kingston 10
tel: 809-926-8174

The Courtleigh has air-conditioned rooms, satellite television, full-service restaurant and bar, swimming pool, and is located in New Kingston, approximately a 5 minute drive to USAID, JEA, IICA, and 10 minutes from the MOA. Rates are at US\$78 per night. There are a variety of restaurants, banks, shops, and supermarkets within walking distance.

If and when available, full-service apartments are located directly adjacent to the Courtleigh and would be rented through:

Mr. Owen Pitter
Allison, Pitter & Co.
1 Tremaine Rd.
Kingston 6
tel: 809-927-4724/5 or 927-9133

You will be advised prior to your departure where reservations have been made for you, with the knowledge that you may change accommodations to a comparable hotel once in-country if desired.

VARIOUS COMMENTS

You will be required to view a USAID security video upon arrival in Kingston. The video is approximately 10 minutes long and will be arranged upon arrival by Mrs.

Rousseau at the Mission. You will be briefed by Mrs. Rousseau at USAID offices the following morning after your arrival.

Arrangements will be made by the AESP/PMU to pick you up at the airport and provide you with ground transportation throughout your project. In the event that no one is at the airport to pick you up, please take a cab or courtesy bus to the hotel and contact any one of the people listed above of your arrival.

The rate of exchange is currently J\$31 to US\$1. Credit cards and travelers checks are widely accepted.

No shots or other immunizations are required for Jamaica. Water is potable throughout the Island. Valid passports are required for travel and a exit tax of J\$400 is levied at the airport prior to your departure.

Telecommunications are very good throughout the island for both domestic and international calls.

LETTER OF UNDERSTANDING
BETWEEN THE
INTER-AMERICAN INSTITUTE FOR COOPERATION
ON AGRICULTURE (IICA)
AND
VOLUNTEERS IN OVERSEAS COOPERATIVE ASSISTANCE (VOCA)

The Inter-American Institute for Cooperation on Agriculture (IICA) is the specialized agency for agricultural and rural development of the Inter-American System. IICA concentrates its efforts on five high priority areas of major concern to its member countries: Agricultural Policy Analysis and Planning; Technology Generation and Transfer; Organization and Management for Rural Development; Trade and Integration; and Agricultural Health; and

Volunteers in Overseas Cooperative Assistance (VOCA) is a private non-profit, international development organization which works to increase economic opportunities and incomes for members of all types of cooperatives and small- and medium-scale enterprises that are agriculture based. This is accomplished through highly-skilled volunteers who provide short-term, technical assistance. With 26 overseas offices and 6 United States based offices, VOCA is currently at work in more than 52 countries.

WHEREAS:

A General Agreement was signed between IICA and VOCA on July 1, 1994, in which the framework and legal basis were established for the signing of future Letters of Understanding; and

IICA and VOCA have expressed a desire to develop, coordinate and field VOCA short-term technical volunteers in support of IICA activities on a regional (LAC) basis.

NOW THEREFORE, the parties hereto agree as follows:

Article 1

Objective:

- a. VOCA will provide volunteer consultants in support of activities promoted by IICA within the Latin American/Caribbean region during the remainder of the VOCA (October 1 to September 30) 1994 fiscal year and during the entire 1995 fiscal year.
- b. These consultants will support those IICA activities which are directly related to promoting and strengthening programs and objectives that IICA may be carrying out on a national or regional basis.

Article 2

Responsibilities of signing Parties:

- a. VOCA will provide an extensive orientation for IICA Directors, Representatives and technicians regarding VOCA as an organization, the methodology and criteria it uses regarding the effective utilization of VOCA's resources. This orientation will be provided through written and telephone communications and, on a case by case basis, direct visits to IICA Headquarters or its Offices.
- b. IICA Headquarters and its Offices will identify and prioritize requests for short-term technical assistance, which will eventually be addressed by specialists recruited and fielded by VOCA.
- c. IICA Headquarters and its Offices will be responsible for the development and timely referral of the Requests for Assistance and the Scopes of Work for each VOCA assignment. These requests/scopes of work will be prepared according to standard VOCA guidelines and/or formats.

- d. Upon signature of this Letter of Understanding, IICA Headquarters, in coordination with the Offices that request the assistance of VOCA volunteers, will prepare six-month work programs that include all the missions needed for that period. In doing this consideration will be given to the fact that VOCA requires three months to process the request, and funding for the volunteers must fall within its fiscal year.
- e. Once VOCA has analyzed and accepted the work programs, said programs will be incorporated into the present Letter of Understanding, as an addendum to same. The initial Requests for Assistance and the Scopes of Work are included in the Annex of this Letter of Understanding and are an intergral part of same.
- f. The VOCA/LAC office will be responsible for the review and adaptation those Requests for Assistance and Scopes of Work as received from the IICA Headquarters and its Offices.
- g. VOCA/Washington will assure that IICA Headquarters receives copies of the final version of Requests for Assistance and Scopes of Work for each programmed VOCA assignment, which will be included pursuant to the above paragraph e.

Article 3

Contributions of the Parties:

- a. Volunteers in Overseas Cooperative Assistance, at its own expense, will cover all those costs that are incurred;
 - i) in the recruitment of the volunteer;
 - ii) transportation to the principal office of the requesting beneficiary organization and return to the U. S.; and
 - iii) the costs of food, lodging, clothing, care, passport immunizations, and insurance against loss from accident, illness, or theft of the volunteer.

- b. Volunteers in Overseas Cooperative Assistance will cover those central and regional costs incurred in the technical review and support of those Requests for Assistance and Scopes of Work as submitted by IICA.
- c. IICA will assure that it will either directly cover or share coverage with the beneficiary organizations with whom the volunteer (s) work or ensure that said organizations cover the following costs:
- i) In-country transportation, including travel to and from the volunteer's lodging to work daily;
 - ii) the costs of providing an office suitable to the volunteer's work;
 - iii) equipment related to the specialist's work;
 - iv) secretarial support in preparing memos, the volunteer's report and other secretarial support; and
 - v) at least one full-time professional counterpart who will act as the direct recipient of the knowledge and technologies to be transferred by the VOCA volunteer consultants and who could serve as interpreter, on a case by case basis.
- d. IICA will cover those costs incurred at its Headquarters and Offices during the promotion of VOCA activities, the development of Requests for Assistance, the development of Scopes of Work, the in-field support of those volunteers fielded as a result of these efforts and the evaluation of their activities. Upon agreement by both parties and on a case by case basis, VOCA agrees to share the costs of activities detailed in this paragraph.
- e. In cases where IICA Headquarters or the IICA Offices can cover some of the costs mentioned in the above paragraph a., VOCA will return any savings to the unit which generated them, by using them to fund additional missions or to extend a mission as long as it does not exceed the three months established by VOCA for assigning a volunteer.

Article 4

Mechanisms of coordination and decision making:

- a. VOCA and IICA, through mutual agreement, will decide in which countries of LAC they will carry out joint activities.
- b. Through its six regional recruitment offices, VOCA will be fully responsible for the identification, selection and timely recruitment of volunteers for each Scope of Work as received.
- c. Upon recruitment of each volunteer, the respective regional recruitment office will send a copy of the volunteer's qualifications (C. V.) to the pertinent IICA Office, to IICA/Headquarters, to VOCA/Washington and to VOCA/LAC. A copy of the volunteers' travel itinerary will also be sent at this time.
- d. As per USAID requirements, (funding source for this agreement) VOCA will be responsible for advising the pertinent USAID local mission of the volunteers' arrival.
- e. Prior to and/or upon arrival in the country, IICA is responsible for providing:
 - i) A detailed work plan, prepared prior to the volunteer's arrival;
 - ii) in-country transportation;
 - iii) a suitable office space;
 - iv) secretarial support;
 - v) at least one full-time volunteer counterpart, who could serve as interpreter, on a case by case basis; and
 - vi) its full cooperation so as to maximize the effectiveness of the specialist's contributions.

- f. IICA is encouraged to facilitate the full or partial cooperation of the beneficiary organizations/communities in the provision of the above detailed requirements.
- g. IICA recognizes that VOCA specialists are volunteers, receiving no salary, fees or honorariums from VOCA or from IICA.
- h. IICA understands that VOCA volunteers have no authority to bind VOCA to any contract or agreement and agrees to bring no legal action nor assert any claim against VOCA in connection with this agreement or specific volunteer assignment.
- i. Each volunteer and VOCA will be fully responsible for assuring that a final report, which details final observations, conclusions and recommendations of each assignment, will be provided to IICA. All final reports will follow the VOCA standard format.
- j. IICA will assure that each volunteer's final report is translated into the pertinent local language and distributed amongst the beneficiaries as needed. Although these publications will be the sole property of IICA, credit will be given to VOCA in same.

Article 5

Term and Amendment

- a. It is fully understood by both parties that this Letter of Understanding is valid only during VOCA's fiscal year 1994 and 1995 (October 1 thru September 31 of each year).
- b. Both parties agree that upon revision of the initial results, this Letter of Understanding may be modified upon mutual agreement and broadened to include the funding and fielding of VOCA volunteer assignments under financial agreements that are above and beyond VOCA's current sources of funding.

- c. This Letter of Understanding may be canceled, modified or extended upon mutual consent by both parties, and will enter into effect immediately upon signature by the last party.

For the Inter-American
Institute for Cooperation
on Agriculture (IICA)



Carlos A. Aquino
Director General

For the Volunteers in Overseas
Cooperative Assistance (VOCA)

x 
Robert Cater
Director Latin America/Caribbean

Date: 23 de agosto de 1994

Place: IICA Headquarters
San José, Costa Rica

Date: 29 de agosto de 1994

Place: VOCA/LAC Office
Guatemala City

TECHNICAL ANNEX

Index of Short Term Missions

Country: Guyana

Title of the Proposal: Milk and Beef Processing and Marketing in Guyana

Specialists Requested: Meat Processing Specialist
Food Technology Engineer
Economist

Country: Guatemala

Title of the Proposal: Berries Productions Process Improvement

Specialist Requested: Production, Harvest and Post-harvest Manager

Country: Guatemala

Title of the Proposal: Agroindustrial Improvement

Specialist Requested: Fruit & Vegetable Processir of Specialist

Country: Jamaica

Title of the Proposal: Financial Analysis of Mini-sett Yam Produced for Export

Specialist Requested: Financial Analyst

Country: Jamaica

Title of the Proposal: Marketing Feasibility of Mini-sett Yam Export

Specialist Requested: Marketing Specialist

1. INTRODUCTION

TITLE: Milk and Beef Processing and Marketing in Guyana
COUNTRY: Guyana
STARTING DATE: As soon as possible
LENGTH OF ASSIGNMENT: Six (6) weeks

SUMMARY OF ASSIGNMENT:

One of the objectives of this assignment is to evaluate the system of milk marketing (collecting, cooling, transporting) in specific regions and to develop a project that would be aimed at improving the milk marketing system in those areas. Associated with the development of such a project would be the assessment of the existing facilities at the Georgetown Milk Plant and designing a project for the modernization of the Plant to include UHT facilities and to facilitate a greater degree of product diversification.

The dual purpose nature of cattle production in Guyana (both milk and beef production) makes it necessary that the project also include a similar evaluation and feasibility study for the establishment of an abattoir and meat plant facilities of international standards, in the coastal region of Guyana. The lack of such a facility is one of the constraints to Guyana's ability to export meat.

2. REQUESTING ORGANIZATION: Inter-American Institute for Cooperation on Agriculture (IICA) Office in Guyana.

IICA has been assisting Guyana in livestock production for over ten years and animal health for four years. These actions have contributed to increased milk production and better documentation on the livestock subsector. IICA has promoted the formation of the Coordinating Committee for Cattle Development which integrates all relevant institutions from the private and public sectors. Present IICA staff working in livestock activities includes to Veterinarians and one Agricultural Economist.

ADDRESS: 18, Brickdam, Stabroek,
Georgetown, Guyana.

PHONE/FAX: Tel: (592) 2-68835;
Fax: (592) 2-58358/76219

CONTACT: Mr. Jerry La Gra,
IICA Representative, Guyana.

3. BACKGROUND INFORMATION

3.1 Guyana: Country Overview

Guyana is located on the northern coast of South America and is bounded on the north by the Atlantic Ocean, on the south and south west by Brazil, on the East by Suriname and on the west by Venezuela.

The most recent Household Income and Expenditure Survey (1993) estimates a total population of about 730,000 persons of which approximately 65% have levels of income below the poverty line. Some eight-seven percent of the population live on the narrow coastal strip which varies from about 10 to 40 miles in width. Georgetown, the capital city has an estimated population of 150,244 persons.

Guyana's population is comprised of six ethnic groups: East Indians, Negroes/Blacks, Amerindians, Chinese, Portuguese and Europeans.

Guyana is a country with diverse resources and great potential. The agricultural sector plays a major role in the economy. The contribution of agriculture, forestry and fishing to GDP fluctuated within the range of 23 to 26 percent over the period 1970-1990. Within this sector, sugarcane and rice cultivation plays a dominant role. There is great potential for the livestock sub-sector to make a greater contribution to the economic development of Guyana. However, a number of constraints must be overcome before the potential of this sub-sector is fully realized.

Guyana's mineral resources also make a significant contribution to GDP. Bauxite, gold, and diamonds are mined in the interior areas of Guyana.

The development of the manufacturing sector in Guyana has been hindered by unreliable utility services and the deteriorated state of basic infrastructure. Recent government efforts in terms of policy and funding are geared at addressing the major issues of the manufacturing sector.

3.2 Cattle Production

3.2.1 Characteristics of the Cattle Population

Guyana's cattle population of about 261,000 head is concentrated in the coastal regions, (Table 1). Available data indicates that this represents about 90 percent of the national cattle population. More than half of these animals are located in small herds of less than 50 head. A few cattle farms are also located on the Interior Savannahs of Guyana, which include the Rupununi Savannah and the Intermediate Savannah.

Table 1: Distribution, Composition and Changes In the Coastal Cattle Population 1988-1992

CATEGORIES IN YEARS		
	TOTAL	% CHANGE
1. TOTAL # OF CATTLE		
1988	242466	
1990	279234	15.0
1992	260530	-7.0
2. No. of Cows		
1988	97006	-
1990	110953	14.0
1992	106939	-4.0
3. No. of Female Calves		
1988	31558	-
1990	33197	5.0
1992	33699	2.0
4. No. of Male Calves		
1988	-	-
1990	27465	-
1992	28845	5.0
5. No. of Heifers		
1988	49611	-
1990	62458	20.6
1992	45893	-27.0
6. No. of Breeding Bulls		
1988	4446	-
1990	5979	35.0
1992	7209	21.0
7. No. of other cattle		
1988	-	-
1990	39183	-
1992	37945	3.0

Source: Ministry of Agriculture Cattle and Milk Production Survey

In Guyana there is no strict classification of cattle as beef or dairy animals. About 41 percent of the cattle found in the coastal regions are adult females. Approximately 15 percent of these cows can be considered to be animals genetically more suited for milk production.

Considering the genetic character of the national herd, it can be said that it is made up predominantly of 'creole' type animals. These are basically the descendants of Bos indicus breeds. In most coastal regions there has been the introduction of breeds such as American Brahman, Santa Gertrudis and Hereford to improve beef production and Holstein/Freisian and Jersey breeds as a result of various efforts in dairy improvement. As a consequence, about 10-15% of the national cattle population may be regarded as dairy types, another 60-70% as dairy/beef types while the remaining 15-30% exhibit in general the characteristics of beef types.

3.2.2 Production Trends

3.2.2.1 Milk Production

Over the past 10 years a great deal of effort has been devoted to the development of the cattle industry in Guyana, notably the dairy sector. The National Dairy Development Programme (NDDP), established in March 1984, has spearheaded the effort to make Guyana self-sufficient in milk production. Table 2 shows the domestic production of fresh milk during the period 1983-1992.

Table 2: Domestic Fresh Milk Production 1983-1992

Year	Production of Milk (000 Lit)	Annual Percentage Change
1983	12,729	-
1984	16,366	28.6
1985	21,821	33.3
1986	23,639	8.3
1987	27,731	17.3
1988	28,799	3.7
1989	31,822	10.5
1990	34,692	9.0
1991	36,400	4.9
1992	39,400	8.2

Source: NDDP Estimates

It has been estimated that the national requirement for fluid milk is about 55 million litres (12 million gallons). Table 2 shows that at the end of 1983 the level of fluid milk production in Guyana was below 13 million litres, representing approximately 25% of the national requirement.

In 1992, domestic production had increased to about 39.4 million litres representing about 71% of the estimated national requirement.

3.2.2.2 Beef Production

Cattle production on most farms on the coastal plain is a secondary agricultural activity. Therefore relatively small amounts of inputs are put into cattle production. The animals reared are dual purpose animals, used for both milk and beef production. Animals are often slaughtered to provide farmers with quick cash and for this reason farmers often refer to their cattle as a form of savings account. Farmers may also sell some cattle for slaughter during the dry season when conditions make it difficult to maintain many animals. About 70 percent of the beef produced in Guyana comes from small cattle farms on the coastland.

Table 3 shows that national beef production increased from 1,600 tons in 1985 to 3,700 tons in 1992. Between 1988 and 1990, beef production increased by 40%. A cattle and milk production survey in 1990 showed that the national herd increased by 15% for the same period (see Table 1). The increase in beef production between 1988 and 1990 seems to be a function of the increased productivity of the national herd, since the slaughtering of over 45,000 animals did not reduce the total cattle population; in fact the cattle population continued to grow.

Table 3: National Beef Production

Year	Production (Tons)	% Annual Increase
1985	1,600	-
1986	1,700	6.3
1987	1,800	5.9
1988	2,000	11.1
1989	2,400	20.0
1990	2,800	16.7
1991	3,000	7.1
1992	3,700	23.3

Source: Ministry of Agriculture, Planning Division

In contrast to this situation, the 23.3% increase in national beef production between 1991-1992 coincided with a 15% decrease in the cattle population. This increase cannot therefore be considered as a positive trend for beef cattle production in Guyana. It was a result of farmers' efforts to concentrate more effort on rice production, due to favourable market conditions for rice. Many farmers therefore significantly reduced their herd size. Death losses due to a suspected bovine rabies outbreak on the Essequibo Coast also contributed to the reduction in the national cattle population during this period.

3.2.2.3 Marketing and Processing of Milk

Marketing of milk and milk products in Guyana can be considered to be in the very early stages of development. There is no organised system for collection, processing and distribution of milk. Quality and sanitary standards are not enforced and there is no diversification in the product market.

The lack of adequate infrastructure in terms of roads, electricity and transportation, has conspired against the development of a distribution network, that would allow for the adequate handling of such a perishable product throughout the distribution chain from the producer to the final consumer.

3.2.2.4 Abattoir and Meat Plant Facilities

One of the most important constraints to Guyana's ability to export meat to other Caribbean countries is the obsolete Georgetown Municipal Abattoir, constructed in 1933, which is controlled by the Municipality of Georgetown. The slaughter of cattle, pigs and small ruminants is carried out under primitive and unhygienic conditions, which do not meet with the necessary sanitary standards for export. Besides preventing exportation, these conditions pose a health risk both to Guyanese consumers of meat and to laborers in the abattoir.

Due to inadequate facilities and equipment, cattle, pigs and sheep are slaughtered on the abattoir floor, then dragged and carried on men's backs to various work stations. The water supply and drainage are inadequate, resulting in generally unsanitary conditions. Animals are not washed before being slaughtered. Lairage facilities are inadequate and often overcrowded, resulting in bruising and the occasional escape of animals. Because chute facilities are not in place to restrain animals, ante-mortem examination is difficult or impossible. Facilities for the post-mortem inspection of heads and organs are inadequate or nonexistent. There is no system of carcass and organ identification, making disease surveillance with traceback to farm of origin difficult or impossible. According to present national regulations, post mortem examination is performed by Public Health Inspectors who are not veterinarians or veterinary technicians. As these inspectors do not have sufficient technical knowledge and as no laboratory equipment (microscope, microbiology, reagents) are available, laboratory confirmation of disease

is not possible. Inspected carcasses are manually removed and thrown on trucks, carts, vans or car trunks to be transported to markets or meatshops. Refrigerated vehicles or holding facilities are not available. Condemned organs and carcasses are transported by open carts to the city incinerator, constituting a risk to public health. There are no restricted areas in the slaughterhouse; anyone can enter and leave at will, creating the possibility of meat being disposed of illegally. Butchers and potential buyers have been observed trying to influence inspectors in decisions regarding condemnation.

4. BENEFICIARY ORGANISATION PROFILE

4.1 General Beneficiaries

The proposed project would be of direct benefit to a number of coastal livestock farmers, many of whom are presently only milking a small percentage of their cattle herd as a result of the difficulty of marketing milk at a profitable price.

A number of milk collectors would also benefit from improvement of the marketing system. It is proposed that some milk collectors be assisted in operating cooling centers. Presently, milk collectors cool their milk by placing chunks of ice in the milk containers. This reduces the quality of the milk and does not adequately cool it for transport to the milk plant in Georgetown.

Upgrading the facilities at the LIDCO Milk Plant would improve the quality and quantity of milk processed and enable more customers in the city center to readily purchase milk and milk products from retail outlets.

The establishment of an abattoir of international standards would facilitate the export of meat and meat products. This would open the door for livestock producers to be foreign exchange earners, thus increasing beef prices and profitability. This is quite likely to stimulate the interest in cattle production and promote a much needed element of diversity in the agricultural sector.

4.2 Livestock Development Company Limited (LIDCO)

The Livestock Development Company Limited (LIDCO) is a limited liability company with 15 shareholders including Guyanese Commercial Banks, Insurance Companies and Agri business organisations along with the Government of Guyana as a minority shareholder, whose mandate is the commercial development of the cattle industry in Guyana with the aim of achieving national self-sufficiency in milk and beef and eventually exports.

The Company, which is a registered joint stock company, was established as a precondition to improve the effectiveness of the Guyana Beef Cattle Project financed by the International Development Association of the World Bank. LIDCO actually commenced operations in the latter part of 1973 with two operations (the Mara and Pirara ranches) but has grown over the years and at present the LIDCO group of eleven (11) enterprises includes five beef operations, four dairy farms, a milk processing plant and a seed paddy production unit. The company has a staff complement of approximately 200 including fourteen Managers (with two vacancies).

Guyana is self-sufficient in beef at present with a national herd of some 260,000 head of cattle. LIDCO, with a herd of approximately 13,000 heads, produces in the vicinity of 20% of national beef supplies. With beef being the cheapest form of animal protein in the country, Guyana is certainly ready to enter the export market in this commodity.

The country is not self-sufficient in milk, however. Indeed while some strides have been made in this direction (NDDP) considerable increased production is mandatory and, with the present "open economy" the marketing of locally produced pasteurised milk is proving extremely difficult with severe competition from imported milk forms (UHT and powdered milk) which are being "dumped" on the local market.

It is in these two areas of activity, the establishment of an abattoir cum feedlot that meets international standards, and the marketing of processed milk (and recommendations on the form, packaging, etc), that the company requires assistance.

4.3 National Dairy Development Programme (NDDP)

The National Dairy Development Programme (NDDP) was established in March 1984 as an Agency under the Ministry of Agriculture responsible for the promotion of National Dairy Development.

Objectives of the Programme include:

1. To increase milk production via improvements in pasture availability/management, dairy herd management and breeding policies.
2. To be instrumental in helping to improve the facilities relative to the collection, processing and distribution of milk and milk products throughout Guyana in keeping with acceptable hygiene and nutritional standards.
3. To achieve full self-sufficiency in milk products in the shortest time possible and replacing present imports with domestic production.
4. To provide an alternative and lucrative means of earning a living.

As of March 1994 the NDDP had a staff of 29 persons including the Programme Director, Senior Dairy Officer, 3 Senior Dairy Assistants, Senior A.I. Assistant, 14 A.I. Technicians and 9 Administrative staff.

Major NDDP activities undertaken by the above staff consist of:

1. The improvement of the nutritional status of the animals via grass, grass legume combinations and supplements.
2. The improvement of the predominantly creole cow towards a more high yielding animal through artificial insemination.
3. The improvement of the milk collection, procession and marketing systems.
4. The improvement of the sociological and educational processes as they relate to dairying.

5. PROJECT DESCRIPTION

5.1 Project Components

5.1.1 Milk collection system

The milk collection component of the project would be aimed at increasing production of milk from the Mahaica-Mahaicony-Abary Region of Guyana. This region is located on the coastal plain about 50 miles from the capital city Georgetown. This region has the highest concentration of cattle and produces more than 25 percent of the milk produced in Guyana. The production potential of this region is hindered by the absence of a milk marketing system.

The project component is expected to address this problem and is proposed to include the following activities:

- evaluation of possible locations for refrigerated collecting centers;
- feasibility study of operating a collection center;
- organization of farmers and milk collectors into groups, and develop management plan for cooling centers;
- evaluation of on-farm production and suggesting of methods for improving milk storage and handling practices, and
- recommendations for milk collection and transport to and from the cooling centers.

5.1.2 Modernization of Processing and Marketing System

The modernization of the LICDO Milk Plant would involve the following activities:

- analysis of market and market opportunities making recommendation as to products and volumes to be produced;
- an assessment of the existing facilities at the Plant in view of determining best options for processing and expansion of operations considering the capital investment required for installing modified pasteurizing equipment or UHT facilities and to facilitate product diversification;
- feasibility study of the proposed upgraded operation.

5.1.3 Establishment of a modernized abattoir

The establishment of an abattoir of internationally accepted standards would involve the following activities:

- evaluation of existing abattoir, beef production and marketing systems.
- estimation of capacity/meat processing facilities and equipment required for new abattoir;
- determine new abattoir location;
- design and plans;
- export and domestic marketing arrangements and public health related matters;
- personnel requirement - recommendations for training program, and
- preparation of feasibility study document.

6. ADDITIONAL COMMENTS

- 1) The volunteers would work in collaboration with technicians from IICA, CARDI (Caribbean Agricultural Research and Development Institute, the Ministry of Agriculture, NDDP (National Dairy Development Program) and LIDCO (Livestock Development Company).

- 2) The volunteer counterpart will be Charles Carmichael, Agricultural Economist, Peter Davis, Livestock Productionist and Sandra Vokaty, Animal Health Specialist at IICA Office in Guyana.
- 3) Logistical support will be coordinated by Jerry LaGra, IICA Representative in Guyana.

7. DESIRED VOLUNTEERS PROFILE

It is recommended that a team of three VOCA volunteers be assigned to this project. The team should include a Meat Processing Specialist, a Food Technology Engineer with specific expertise in dairy processing and marketing and an Agricultural Economist.

Terms of references for Meat Processing Specialist.

1. At least a M.Sc degree in Meat processing technology.
2. At least five years experience in slaughter and meat processing plants.
3. A sound knowledge of the international regulations regarding slaughter and meat processing plants.
4. Adequate skills in the designing of meat plants and the selection of the adequate equipment based on international and national standard regulations.
5. Language required: English

Terms of reference for Food Technology Engineer

1. At least ~~M.Sc~~ M.Sc degree in the relevant discipline.
2. At least five years experience in dairy processing technology and dairy management.
3. Working experience in a dairy plant producing diversified dairy products.
4. A knowledge of milk marketing systems, including the operation of cooling stations.
5. Language required: English.

Terms of reference for Economist

1. At least a M.Sc degree in Economics or Agricultural Economics.
2. A good knowledge of beef and dairy cattle production in tropical environments.
3. At least five year experience in project formulation and feasibility studies particularly with regards to agricultural production.
4. The volunteer should have experience with milk production/marketing cooperatives.
5. Language required: English.

SCOPE OF WORK
March 24, 1994)

I. **TITLE:** **AGROINDUSTRIAL IMPROVEMENT**

COUNTRY: Guatemala

START DATE: August 1st 1994

LENGTH OF ASSIGNMENT: Six (6) Weeks

**SUMMARY OF
ASSIGNMENT**

The Fruit and Vegetable Development Program -PROFRUTHA- has requested the services of a VOCA Volunteer to assess them in fruit and vegetable processing. The main objective of this assignment will be to improve the process of preparation, formulation, transformation and management of processed material.

II. **REQUESTING**

ORGANIZATION: **FRUIT AND VEGETABLE DEVELOPMENT PROGRAM -
PROFRUTHA-**

ADDRESS: 3a Calle 6-11 zona 9,
Oficina 607-611, Planta Baja
Guatemala, C.A.

PHONE/FAX: (502)2 318219 319267
(502)2 3273606 (tel.fax)

CONTACTS: **PROFRUTHA**
Ing. Jorge Escobar -Executive Director-
Ing. Jorge Prado -Agro-Industry Unit
Coordinator-

VOCA/I.A.C
Jorge Salzar/Reyna De León de C.
(502)2 318642
(502)2 345895 (fax)

II. Target Organization Profile

The Fruit and Vegetable Development Program was established in 1989, as an effort made by the Ministry of Agriculture, Livestock and Food for the establishment and improvement of fruit trees plantations. The above is a response to a limited commercial exploitation of said species in Guatemala.

The Program is responsible for generating and carrying out projects to support fruit development in the different weather and land conditions that the country offers.

The Program's area of action has been primarily focused in tropical zones (0-800 m.n.j.s.l) where tropical species have been upgraded. Among these species the following ones can be mentioned: mango, papaya, pineapple, citric and others. Additionally, the Program has covered to a lesser degree the Central and Western Highlands, where the weather ranges from lukewarm to cold and where plantations of temperate climate fruit tree, raspberries, blackberries, etc. have been promoted.

The Program has established a strong vertical and horizontal organizational structure in order to carry out its activities. The vertical organization is based on five basic components:

- a. Extension and Technology Transfer;
- b. Production of Vegetative Material;
- c. Training of Technical Personnel; and
- d. Applied Research.

The horizontal organization consists on the delimitation of the geographical areas that the program covers in work regions with the same characteristics. In these regions controlled and supervised actions are developed by specific personnel assigned to each of them.

Jointly with the actions aimed at the establishment of new plantations of fruit trees and the improvement of existing ones, the Program has established a specific project for Fruit and Vegetable Industrialization and Marketing with the idea of promoting agro-industries.

III. Industrialization and Marketing of Fruits and Vegetables Project Background

This Project is intended to promote small agroindustrial plants supported and managed by the same producers. In order to achieve its purposes the project has two basic components:

- a. **Promotion and Motivation:** The primary objective of this component is to motivate individuals and organized groups through their participation in training

and demonstrations of industrial processes.

These agroindustrial processes include:

1. **Bottled Products:** Marinated vegetables, jellies, marmalades, syrups, juices, nectars, etc. made of fruits such as apple, peach, pear, plum, mango, pineapple, papaya, raspberry, blackberry, etc. and from a variety of vegetables.
2. **Dehydrated Products:** fruits and vegetables. To develop these agroindustrial processes, the project has a portable bottler plant (capacity: 275 kg/hour), a fixed bottler plant (capacity: 275 kg/hour) located in the Central Highlands of Guatemala and a dehydrator plant (capacity: 180 kg/hour) located in the Western Highlands of the country.

b. **Marketing and Technical Assistance**

Through this component, technical assistance services are provided to the fruit producers. These services include the development of feasibility studies, productive process research and market research.

IV. **Project Description:**

The Fruit and Vegetable Development Program -PROFRUTHA- has requested the services of a VOCA Volunteer to assess them in fruit and vegetable processing. The main objective of this assignment will be to improve the process of preparation, formulation, transformation and management of processed material.

The following is a brief description of the areas of work that the VOCA Volunteer will be asked to carry out:

1. *Evaluate the present conditions of each of the 3 plants, including their housing, processing equipment, reception centers, etc.*
2. *Determine the potential to improve the quality and efficiency of the current and potential productive processes within the different lines of production.*
3. *Provide recommendations regarding means to reduce production costs without affecting quality standards.*
4. *Facilitate a training process (theoretical and practical) to the technical personnel assigned to each plant in the phases of preparation, formulation, processing, management, etc. of the different products processed by the Program. (For this*

purpose a detailed work-plan will be designed between the Volunteer and the Technical Director of the Program).

5. *Research and provide appropriate recommendations regarding the upgrading and diversification of fruit and vegetable processing technologies.*
6. *Suggest appropriate means to improve the storage of the products obtained in the plant using refrigeration and environmental controls techniques.*
7. *Develop a final report, directed to PROFRUTHA, in which final observations, conclusions and recommendations will be detailed.*

V. Description of Guatemala:

Guatemala (108,889 square Km.), is the most populous of the Central American republics and the only one which is largely Indian in language and culture. Two-thirds of its territory is mountainous and 38% is forested. It has coastlines on the Pacific (240 km.), and on the Caribbean (110 km.).

About 55% of the total population (9.2 m in 1990) are Amerindian, while 4% are ladino and only 3% black or white. Birth rate: 39.3 per 1,000; infant mortality, 46.6 (1988); population growth: 2.9%. UN statistics show that 87% of the population live in poverty and 7% cannot afford a minimum diet. The indigenous people of Guatemala are mainly of Maya descent. There are 22 recognized language groups of the Guatemalan Maya, with 100 or more dialects.

A lowland ribbon, nowhere more than 50 km. wide, runs the whole length of the Pacific shore. Cotton, sugar, bananas and maize has been the traditional crops of this lowland. From this plain the highlands rise sharply to heights of between 2,500 and 3,000 meters and stretch some 240 km. to the N before sinking into the northern lowlands. A string of volcanoes rise boldly above the southern highlands along the Pacific. There are intermont basins at from 1,500 to 2,500 meters in this volcanic area. Most of the people of Guatemala live in these basins, drained by short rivers into the Pacific and by longer ones into the Atlantic rainfall.

The lower slopes of these highlands, from about 400 to 1,500 meters are planted with coffee. Above 1,500 meters is given over to wheat and the main subsistence crops of maize and beans. Deforestation is a serious problem. The climate, which depends upon altitude, varies greatly. The pronounced rainy season in the highlands is from May to October; the dry season from November to April. Frost is common from December thru February.

The equitable distribution of occupied land is a pressing problem. According to the 1979 census, there were 531,636 farms, of which 54% were less than 1.2 hectares, 34% were of under 7 hectares, while less than 1% were of more than 900 hectares.

In international trade the focus is still heavy on agriculture, which accounts for two thirds of total exports. Coffee is the largest export item, followed by sugar, but bananas, sesame and cardamom are also important crops. There has been an attempt to diversify agricultural exports with a consequent increase in tobacco, vegetables, fruit, ornamental plants, and beef exports.

The industrial sector has been growing steadily; these include rubber, textiles, paper and pharmaceuticals, chemicals, furniture, petroleum products, electrical components and building materials are also produced. The encouragement of "maquila" industries in the mid-1980's has attracted foreign investment, much of it from the Far East and has created low-paid jobs for about 80,000 Guatemalans, mostly in garment manufacturing. "Maquila" exports rose from US\$20m in 1986 to nearly US\$207m in 1990.

Historically, Guatemala has had one of the most unstable political environments in the hemisphere. Most recently, during the months of April and May of 1993, a series of social crises provoked 3 coup de tat's within a 13 day period. With the Congressional election of Ramiro de Leon Carpio (former Human Rights Ombudsman) on the 6th of June, a new era of hope and has begun.

However, this democratic transformation will continue to encounter a variety of barriers: unemployment, lack of basic services, high levels of corruption and drug trafficking/money laundering. At the beginning of 1994, the Guatemalan government and the hemisphere's oldest insurgency movement have recommenced a negotiation process to subscribe a peace agreement.

VI. Additional Comments

1. The Volunteer is encouraged to come prepared with available didactic materials (slide shows, videos, pamphlets, etc.) that may help the assignment.
2. The volunteer's counterpart will be Mr. Jorge Prado (Technical Director of the Project of Agroindustry and Marketing).
3. The Volunteer will be asked about lyophobic processes. As such, if possible, the gathering of information on the process would be greatly appreciated.
4. The volunteer will be located in three cities: Guatemala, Quetzaltenango and Jalapa where good accommodations can be found.

SCOPE OF WORK
(June 6, 1994)

I. TITLE: BERRIES PRODUCTIONS PROCESS IMPROVEMENT
COUNTRY: Guatemala
START DATE: August 15th 1994 or sooner
LENGTH OF ASSIGNMENT: Six (6) Weeks

SUMMARY OF
ASSIGNMENT

The Fruit and Vegetable Development Program - PROFRUTHA- has requested the services of a VOCA Volunteer to assess them in the field production process improvement of the following crops: Blackberry, Raspberry and Blueberry. The main objective of this assignment will be to conduct a training process directed to the technical personnel of PROFRUTHA, regarding the different agricultural cares to be considered to improve the productivity of the mentioned crops.

II. REQUESTING
ORGANIZATION: FRUIT AND VEGETABLE DEVELOPMENT PROGRAM -
PROFRUTHA-

ADDRESS: 3a Calle 6-11 zona 9,
Oficina 607-611, Planta Baja
Guatemala, C.A.

PHONE/FAX: (502)2 318219 319267
(502)2 3273606 (tel.fax)

CONTACTS: PROFRUTHA
Ing. Jorge Escobar -Executive Director-
Ing. Eddy Martínez -Technical Director-

VOCA/LAC
Jorge Salazar/Reyna De León de C.
(502)2 318642
(502)2 345895 (fax)

III. Target Organization Profile

The Fruit and Vegetable Development Program was established in 1989, as an effort made by the Ministry of Agriculture, Livestock and Food for the establishment and improvement of fruit trees plantations. The above is a response to a limited commercial exploitation of said species in Guatemala.

The Program is responsible for generating and carrying out projects to support fruit development in the different weather and land conditions that the country offers.

The Program's area of action has been primarily focused in tropical zones (0-800 m. a.s.l) where tropical species have been upgraded. Among these species the following ones can be mentioned: mango, papaya, pineapple, citric and others. Additionally, the Program has covered to a lesser degree the Central and Western Highlands, where the weather ranges from lukewarm to cold and where plantations of temperate climate fruit tree, raspberries, blackberries, etc. have been promoted.

The Program has established a strong vertical and horizontal organizational structure in order to carry out its activities. The vertical organization is based on five basic components:

- a. Extension and Technology Transfer;
- b. Production of Vegetative Material;
- c. Training of Technical Personnel; and
- d. Applied Research.

The horizontal organization consists on the delimitation of the geographical areas that the program covers in work regions with the same characteristics. In these regions controlled and supervised actions are developed by specific personnel assigned to each of them.

Jointly with the actions aimed at the establishment of new plantations of fruit trees and the improvement of existing ones, the Program has established a specific project for Fruit and Vegetable Industrialization and Marketing with the idea of promoting agro-industries.

IV. Fruit Trees Production Development Project Description:

This Project is intended to offer to the farmers different options to diversify their agricultural productions through fruit crops with high rates of profitability. The production of exportable volumes that gather high quality and competitive levels in the international market is pursued.

Within the services provided through this Project are included:

a. **Technical Assistance:**

This services are oriented to the establishment of new plantations, design and management of sanitary plans, fertilization, general cares, field inspections, post-harvest management and connections between buyers and producers.

b. **Nursery Establishment:**

The project provide orientation to the establishment of private fruit trees nurseries and their appropriate management. also the project has their own nurseries to produce and provide high quality plants for the establishment of new plantations.

c. **Research:**

Through specialized technicians the project detect problems or situations that limit the quality and quantity in the fruit production, and state studies of applied researching for the solution of said problems/situation.

Through the project technical assistance is provided for the following crops: Mango, Cashew, Avocado, Blackberry, Raspberry, Apple, Peach, Pear, Orange, Lemon, Grape, Papaya, Sapodilla, and other tropical fruit.

IV. Project Description:

The Fruit and Vegetable Development Program -PROFRUTHA- has requested the services of a VOCA Volunteer to assess them in the field production process improvement of the following crops: Blackberry, Raspberry and Blueberry. The main objective of this assignment will be to conduct a training process directed to the technical personnel of PROFRUTHA, regarding the different agricultural cares to be considered to improve the productivity of the mentioned crops.

The following is a brief description of the areas of work that the VOCA Volunteer will be asked to carry out:

1. *Conduct meetings with the Executive Director, Technical Director and other technical personnel of PROFRUTHA to develop a specific work plan (a preliminary work plan will be presented to the Volunteer at his/her arrival to the country).*
2. *Become familiar with the work area. This will be accomplished through meetings held with the PROFRUTHA personnel in the national and regional*

offices, as well as visits to the respective farms and to local Agro-industries that are processing this type of crops.

3. *During a four-week period provide a series of on-farm workshops to local producers. During this time, recommendations will be provided to improve the proceedings used to plant, cultivation practices, harvest and post-harvest technical procedures with the purpose of increasing their productivity and efficiency. During these workshops, the following aspects should have special emphasis:*
 - Proper practices to plant this crop applying the appropriate technology;*
 - Fertilization requirements;*
 - Principal Pests and diseases that affect economically this crop;*
 - New varieties which could be recommended to be introduced to the country;*
 - Irrigation requirements;*
 - Other cultural practices; and*
 - Harvest and post-harvest practices, etcetera.*
4. *During these same workshops discussions will take place regarding advantages/disadvantages of different mechanism to trade their production.*
5. *The volunteer will be expected to design a basic agronomical plan for the crop production as well as for the harvest and pos-harvest management.*
6. *To provide orientation to make a characterization of potential areas for the introduction of the Blueberry crop.*
7. *Facilitate a national Seminar directed to private producers and technicians working in related fields, regarding the international market situation, varieties with high demand in the international market (USA and Europe) and with potential to be produced under the climate and soil conditions existing in Guatemala.*
8. *Develop a final report, directed to the beneficiary organization, detalling final observations, conclusions, recommendations and needed areas for follow-through.*

It should be noted that all of the above detailed objectives will be carried out in conjunction with the Volunteer counterpart from the Beneficiary Organization, who will be assigned to this project on a full time basis.

V. Description of Guatemala:

Guatemala (108,889 square Km.), is the most populous of the Central American republics and the only one which is largely Indian in language and culture. Two-thirds of its territory is mountainous and 38% is forested. It has coastlines on the Pacific (240 km.), and on the Caribbean (110 km.).

About 55% of the total population (9.2 m in 1990) are Amerindian, while 4% are ladino and only 3% black or white. Birth rate: 39.3 per 1,000; infant mortality, 46.6 (1988); population growth: 2.9%. UN statistics show that 87% of the population live in poverty and 7% cannot afford a minimum diet. The indigenous people of Guatemala are mainly of Maya descent. There are 22 recognized language groups of the Guatemalan Maya, with 100 or more dialects.

A lowland ribbon, nowhere more than 50 km. wide, runs the whole length of the Pacific shore. Cotton, sugar, bananas and maize has been the traditional crops of this lowland. From this plain the highlands rise sharply to heights of between 2,500 and 3,000 meters and stretch some 240 km. to the N before sinking into the northern lowlands. A string of volcanoes rise boldly above the southern highlands along the Pacific. There are intermont basins at from 1,500 to 2,500 meters in this volcanic area. Most of the people of Guatemala live in these basins, drained by short rivers into the Pacific and by longer ones into the Atlantic rainfall.

The lower slopes of these highlands, from about 400 to 1,500 meters are planted with coffee. Above 1,500 meters is given over to wheat and the main subsistence crops of maize and beans. Deforestation is a serious problem. The climate, which depends upon altitude, varies greatly. The pronounced rainy season in the highlands is from May to October; the dry season from November to April. Frost is common from December thru February.

The equitable distribution of occupied land is a pressing problem. According to the 1979 census, there were 531,636 farms, of which 54% were less than 1.2 hectares, 34% were of under 7 hectares, while less than 1% were of more than 900 hectares.

In international trade the focus is still heavy on agriculture, which accounts for two thirds of total exports. Coffee is the largest export item, followed by sugar, but bananas, sesame and cardamom are also important crops. There has been an attempt to diversify agricultural exports with a consequent increase in tobacco, vegetables, fruit, ornamental plants, and beef exports.

The industrial sector has been growing steadily; these include rubber, textiles, paper and pharmaceuticals, chemicals, furniture, petroleum products, electrical components and building materials are also produced. The encouragement of "maquila" industries in the mid-1980's has attracted foreign investment, much of it from the Far East and has created low-paid jobs for about 80,000 Guatemalans, mostly in garment manufacturing. "Maquila" exports rose from US\$20m in 1986 to nearly US\$207m in 1990.

Historically, Guatemala has had one of the most unstable political environments in the hemisphere. Most recently, during the months of April and May of 1993, a series of social crises provoked 3 coup de tat's within a 13 day period. With the Congressional election of Ramiro de Leon Carpio (former Human Rights Ombudsman) on the 6th of June of 1993, a new era of hope and has begun.

However, this democratic transformation will continue to encounter a variety of barriers: unemployment, lack of basic services, high levels of corruption and drug trafficking/money laundering. At the beginning of 1994, the Guatemalan government and the hemisphere's oldest insurgency movement have recommenced a negotiation process to subscribe a peace agreement.

VI. Additional Comments

1. The Volunteer is encouraged to come prepared with available didactic materials (slide shows, videos, pamphlets, etc.) that may help the assignment. Spanish language materials are preferred, but not essential.
2. The volunteer's counterpart will be Ing. Eddy Martinez -Technical Director-
3. The Volunteer will be based in Guatemala City, but will be traveling around rural area of the country. The climate conditions throughout the country during the assignment duration will be variable (hot and cold) and humid with frequent rains. Appropriate rain gear and hot and humid climate clothing advised. Women can wear slacks.
4. A meeting with the Agricultural Sector Officer in the AID/Mission is recommended. The volunteer is not advised to bring suits or formal dresses, but there may be an occasion to wear a tie.

VII. DESIRED VOLUNTEER PROFILE:

The ideal volunteer for this assignment would have to have the following characteristics:

- Possess a strong background in the Production, harvest and post-harvest management of the crops included in this project.

- Have experience providing and organizing the delivery of services of technical assistance for the above mentioned crops.
- Experience working with organizations which support small and medium size agricultural producers.
- The Volunteer should have a personality that allows, facilitates and promotes the interchange of knowledge, through a participatory process.

NOTE:

This Scope of Work has been translated by Laura Gómez who is not a native English speaker. Please excuse any grammatical or spelling error. THANKS A LOT.

SCOPE OF WORK

"FINANCIAL ANALYSIS OF MINI-SETT YAM PRODUCED FOR EXPORT"
and
"MARKETING FEASIBILITY OF MINI-SETT YAM FOR EXPORT"
in support of the

NATIONAL YAM EXPORT DEVELOPMENT PROJECT
AGRICULTURAL EXPORT SERVICES PROJECT/Project Management Unit
JAMAICAN EXPORTERS' ASSOCIATION

TARGET ORGANIZATIONAL PROFILE:

The Agricultural Export Services Project (AESP) was begun in 1990 as a project jointly funded by the Government of Jamaica and the United States of America (through the Agency for International Development-USAID). The project channels its resources through sub-grantees (composed of cooperatives, producer groups, and other private agribusiness groups and other private and public sector entities) who provide services that are designed to achieve the following goals:

- * improve and increase the range and volume of the crops produced
- * improve the quality of export production
- * increase and improve the quality of export services

The AESP is designed to provide funding for both traditional and non-traditional crops. In Jamaica, the range of traditional crops include: bananas, citrus (oranges and mandarins), cocoa, coffee, and sugarcane. Non-traditional crops include, but are not limited to: tropical fruits (papaya, mango), yams, ornamental horticulture (anthurium), spices, and other vegetables.

Project funding is for a total of US\$16 million, with US\$10 million provided through USAID, and US\$6 million by the Jamaican government. The project is past the halfway mark in terms of funds disbursed and life (project phase-out is scheduled for 1996). The project portfolio is currently being revised by means of a technical review board called the Project Coordinating Committee (PCC) made up of representatives from the Ministry of Agriculture and its Project Management Unit (PMU), the Jamaican Exporters' Association (JEA), and a USAID representative, who is a sitting member. The Chairman of the PCC is Mr. Clarence Franklin, who is also the Permanent Secretary to the Ministry of Agriculture. There are currently several sub-grantees receiving assistance under the AESP:

- *Western Banana Development Corporation
- *Tryall (Port Antonio) Banana Corporation
- *Non-Blue Mountain Coffee Growers
- *Richmond Fermentary (Cocoa/Coffee)
- *National Yam Export Development Project

The AESP project is coordinated by a Project Management Unit (the above-mentioned PMU) located in the Ministry of Agriculture. The staffing is currently made up of 2 full-time staff; Project Manager Mr. A.C. Allen, and a Technical Advisor, Mr. Earl Guise. It is expected that a Deputy Project Manager will be hired in the near future.

2
staff

The Jamaican Exporters' Association (JEA) was formed in 1965 to represent the interests of the exporter community, particularly with regard to government export and development policy, and to promote exports as a central strategy of economic development.

In early May of 1994, VOCA signed a cooperative agreement between the Government of Jamaica (represented by the Ministry of Agriculture), the JEA, and the Government of the United States of America (represented by USAID) to provide short-term technical assistance to the project's sub-grantees on a demand basis.

PROJECT OVERVIEW

Agriculture and natural resources in Jamaica is an important productive sector in the economy of Jamaica. The sector provides nearly 8% of the GDP, employs 27% of Jamaica's labor (approximately 150,000 farm families are directly supported by agriculture), and 14% of the country's export earnings. After bauxite and tourism, agricultural exports comprise the third largest source of foreign exchange, amounting to US\$170,924,000 in 1991. In 1993, traditional exports (sugar, bananas, coffee, citrus) have earned US\$162.8 million, while non-traditionals (ornamentals, yams and other tubers, tropical fruits) earned US\$31.4 million. The category of non-traditional crops has become an area of major focus within the farming sub-sector, showing an increase in performance by 15.9% in export volume over 1991.

Over the past 15 years; however, the growth rate of Jamaica's agricultural sector has been less than expected. In an effort to reverse this, it was felt that innovative methods had to be exploited and introduced to encourage production. The Jamaica Agricultural Export Services Project was designed specifically for this purpose. The effectiveness of the project lies in using available and new methods to enhance the productivity and also improve and expand export related-services.

The National Yam Export Development Sub-Project is an integral component to the AESP. The Sub-Project aims at increasing the export of yams by promoting an improved production system based on the "Mini-Sett" technique, which was developed in Nigeria at the International Institute for Tropical Agriculture (IITA) and introduced

to Jamaica by the IITA in 1985 under a joint Government of Jamaica/Univ. of the West Indies/IITA Root Crop Project.

Mini-Sett is a new technology for growing yam for the export market. In traditional yam cultivation, the yam heads of large yams must be removed before exporting. In Mini-Sett technology however, small, whole yams can be produced that are more uniform in shape and do not need to be treated with chemicals before they are exported. Mini-Sett can also be grown on hillsides, make better use of planting materials so that more yam is harvested (yields using mini-sett technology are at 35,000-40,000 lbs. per unit acre compared to 10,000-12,000 lbs. obtained from traditional methods of technology), and does not require the large sticks that are used for traditional yams. The yams have the advantage of having a longer shelf-life as they are whole/uncut and do not have the "hollowing" frequently found in larger yams. Mini-Sett yams are in the size range of 0.3 to 2.0 kg. and are sold as whole tubers. They are available year-round and packed in 20.5 kg. boxes, usually in sawdust or coconut fiber to protect during shipment. They have a shelf-life of 2-3 months and can be boiled, baked, roasted, scalloped, or mashed, much like potatoes.

The principal agencies encharged with implementing the project are the Inter-American Institute for Agricultural Cooperation (IICA), RADA (Rural Agricultural Development Agency, which operates as the government extension service), JAMPRO (the Jamaican Promotions Corp.), and more specifically, a department of JAMPRO, known as JETCO, the MOA's PMU, and the JADF (Jamaican Agricultural Development Foundation).

The first phase (3 years) of the project is scheduled to phase-out in October '94. The specific objectives of the project were the following:

- promote general adoption of the Mini-Sett technique by 1000 farmers
- substitute 500 acres of traditional production with Mini-Sett
- increase yam exports by 20%

Using data gathered by RADA, the results of the project's phase were the following:

- *over 1500 farmers have adopted the technology, with over 200 being involved with the method of production for over one year
- *preliminary data suggesting upwards of 300 acres have been substituted
- *exports of the commodity in 1992 was 13,374,000 kg, reflecting a 50% increase over the 8,931,000 kg. exported in 1989. The 1992 figure also shows a 19% increase over those of 1990. (in 1993, JETCO, the only company exporting mini-sett yams on a significant level, exported 26,884 lbs.).

Subsequent reviews made by the AESP Technical Advisor and others suggested that there seemed to be a sufficient amount of interest evinced by producers to continue the project and that an extension of the project through IICA and RADA should be considered.

Based on these evaluations, there was an official request by RADA to extend funding for the program for an additional 3 years.

It is against these generally optimistic indicators, however; that a few recommendations were made to warrant extension of the project. During the first phase, the original program consisted mainly of teaching the technology to farmers through demonstration plots focusing on the parishes of Clarendon, Manchester, Trelawny, St. Ann, St. Catherine, St. Andrew, and Hanover.

There was no marketing component, nor was there a comprehensive financial/cost analysis done to determine whether producing Mini-Sett yams for export was a financially sound undertaking. There are several market evaluations; primarily in the Bull Ring Wholesale Market in Birmingham, England, and shorter reports on the problems exporters face, but there is no relation of data relating exportable quality yields, money returns, market acceptance, and other relevant historical data that could provide a sounder basis on which to base future funding or other activities.

The current marketing strategy targets the "ethnic markets" of North America and the UK and has not examined nor pursued any niche markets outside of that or attempts to investigate other cross-over potential. It will also be necessary for any marketing study to provide a review of promotional options.

PROJECT OBJECTIVES

Given the above, the Jamaican Exporters' Association, in coordination with the AESP/Project Management Unit; has requested the services of two VOCA Volunteers to assist in perform a comprehensive financial analysis of producing the Mini-Sett yam for export, and another to provide a comprehensive market feasibility study on Mini-Sett yam for export. If at all possible, the projects should be carried out simultaneously, or allow the two volunteers to spend at least one to two weeks together in the field, with the marketing feasibility volunteer preceding the financial analyst.

It should be mentioned that the bulk of the actual production technology was carried out by RADA, with IICA being the financial manager during the first phase of the project.

For the second phase of the project, it is envisioned by IICA that small farmers (holdings up to 10 acres) will be the main target beneficiary group. How to

incorporate that sector into producing for economies of scale and organizing (there is currently no Yam Producers' Association) will be an important objective to be realized. IICA's plans are to hook up small farmers with a network of exporters (4-5 exporters have already been contacted), where the farmers and exporters would enter into a satellite contract farming arrangement where the exporters would be liable for providing the inputs (including training). The contract would have the farmer receiving a set farm gate price less the costs of inputs provided by the exporter. The proceeds would go into a revolving fund to support the creation of a Yam Growers' Association. IICA would initially be monitoring the revolving fund until the creation of the growers' group would come into being. It should be mentioned however, that "contract farming" in Jamaica does not have a very successful history.

The project objectives to be realized are as follows:

1) Upon arrival, conduct extensive interviews with representatives from the JEA, AESP/PMU, IICA, RADA, JAMPRO, and Kingston-based yam exporters. The Agricultural Marketing Corporation (AMC-Mrs. Rita Sands is a primary contact there) packing and handling facilities should be included, as well as facilities at Kingston Airport. Reports already completed should be consulted (a bibliography of reports available is attached to on the following pages).

2) Conduct field visits to a spectrum of yam producers for interviews and observations of production/supply capacity. (One of the more active producers, Mr. Richard Khourrie, of Mandeville should be included in any visit).

3) For the Marketing Feasibility Volunteer, draft a comprehensive report directed to the JEA and PMU determining whether a viable export market exists for mini-sett yams which should address at a minimum the following:

*Jamaica's competitive advantage/disadvantage on the world market vis-a-vis other miniset yam-producing countries (Costa Rica, France)

*Packaging, post harvest-handling, and promotional (e.g. labeling) recommendations

*Accessing/cross-over potential to other niche markets and alternative marketing centers

*Substitute product comparisons

For the Financial Analysis Volunteer, draft a comprehensive report directed to the JEA and PMU which should provide a cost analysis of production based on market price inputs, post-harvest handling prices (treatment plants, packing plants), establishment of a time-line, and determination of other cost inputs (labor, etc.).

The reports should be completed prior to leaving Jamaica.

4) Present the findings at a seminar to be held before representatives of the JEA, AESP/PMU, IICA, RADA, JAMPRO, USAID, and yam exporters.

It will be essential for the VOCA Volunteers to begin collecting data prior to departure to Jamaica on project.

The VOCA Volunteers should be briefed by both the VOCA Program Officer in Washington, DC prior to departure and the USAID Project Officer upon arrival. The VOCA Volunteers should also be debriefed in-country and in Washington, DC upon return to the USA.

Length of project is estimated at 3-4 weeks.

The VOCA Volunteers will be based out of Kingston at either the Courtleigh Hotel, or at a full-service apartment (located adjacent to the Courtleigh) subject to preference and/or availability. The Volunteers should expect to be spending the night in secondary cities/towns as their in-country schedule calls for. Accommodations will most likely be in hotels or guest houses in that case. All addresses are located on the contacts page (last page) of this scope of work.

COUNTRY DESCRIPTION (please refer to the Country Information Section of the Briefing Book for a more comprehensive treatment of the country)

History

Jamaica has a rich and varied history beginning even before the arrival of Columbus in 1494, when the country was occupied by the Arawak Indians. The Island was captured from the Spanish by the British in 1655 and remained under direct British rule until political independence was granted in 1962.

Jamaica has a Westminster style constitution, with a Governor-General as the representative of the British Crown, and a bicameral Parliament. There is a House of Representatives consisting of elected representatives appointed by the Prime Minister and the Leader of the Opposition. The government is headed by a Prime Minister, who is required to consult with the Governor-General and the Leader of the Opposition on certain matters.

There are two major political parties, the JLP (Jamaican Labor Party) and the PNP (People's National Party); which have historically alternated power. From 1980-89, the JLP held office. They pursued a laissez-faire free market policy through the urging of the IMF, World Bank, and USAID. Because of a special political relationship with the Reagan administration, Jamaica received a relatively large outpouring of US assistance in the first half of the decade. The economy was substantially deregulated, the currency was devalued, and many public enterprises

were divested in the process of adjustment, which has now been on-going for some 14 years.

The eighties saw the development of free-zone manufacturing, especially of garments for export to the USA, the gradual recovery of bauxite/alumina production, and the rapid growth of tourism from North America. In the process, the traditional international economic relations, particularly with the USA, were strengthened at the expense of regional relations, such as Caricom trade.

In 1989, the PNP, led by the Honorable P.J. Patterson became the new government, and has continued the policies of the 1980's. Exports have been strongly encouraged in all sectors, and deregulation of the economy continues.

The Island and its' People

Jamaica is 235 kilometers long, and 82 kilometers at the widest point for a total area of 11,000 square kilometers. It lies in the Western Caribbean about 970 kilometers south of Miami, and 970 kilometers north of Panama, making it centrally located on the on shipping routes going through the Canal.

The population of Jamaica was 2.4 million in 1991, with an average annual growth rate of 1.1% from 1980-1991. Approximately 45% of the people are under 19 years of age, and a little less than 3% being above the age of 65. Based on the census of 1982, at least 48% of the population is urban; in 1943, the census estimated the urban population at that time to be 15%.

In the 1980's, net emigration, mainly to the USA, Canada, and the UK has averaged about 17,500 per year. The Jamaican expat community in the USA and the UK of 500,000 in each country at present. Remittances from these immigrants constitute an important part of private capital inflows, and of consumer imports annually.

The vast majority of the population is of African descent, but there are well established Indian, Chinese, Arab, and European communities as well. Christianity in its various denominations, is the religion of the vast majority of the population.

There are two international airports on the Island, Norman Manley in Kingston, and Sangster, in Montego Bay. They can both handle 747 aircraft. There are twelve active ports, the largest and most modern being Kingston (the seventh largest natural port in the world), which handles 80% of the incoming trade. Four of the other ports handle largely agricultural trade.

Jamaica has one of the most developed roads systems in the region. With about 13,000 kilometers of road, Jamaica has an average of 1.2 kilometers of road per square kilometer. Road transport is the primary mode of domestic transport for both people and freight; very little domestic produce is carried by railroad (there is 325 kilometers of track on the Island).

Agriculture

The main agricultural based exports are sugar, bananas, and coffee. In the 1980's, there was a rapid growth of non-traditional exports, targeted largely at ethnic communities overseas. Some doubts about the future of sugar and bananas have been generated by the unification of the European market which threatens traditional preferential arrangements enjoyed by Jamaica in the UK market.

The social structure in agriculture is still based on the traditions forged from the colonial experience. Approximately 82% of farmers are small farmers operating on 5 or less acres of land. The more fertile plains remain enclosed in large farms, some of which are government-owned sugar estates, and more recently, high-tech farms producing winter vegetables for the North American market.

Domestic agriculture has always played a stabilizing role for the economy as a whole. It has performed well, even in periods of over-all economic decline. Domestic food crops are grown primarily by small farmers. In recent years these farmers have faced stiff competition from cheap imports of food and from the rejected produce of the large export projects, especially winter vegetables, dumped on the local market. In 1988, Hurricane Gilbert did severe damage to the sector, but it has recovered quickly.

Food production is the largest sub-sector of manufacturing, with some 19.1% of total manufactured output in 1990. If sugar is included, the figure rises to 22.1% of that same year. The vast majority of output, with the exception of sugar, is sold on the local market. Sugar is exported primarily to the UK, the EEC, and the USA; most other manufactured products are sold on the Caricom (Caribbean Community) market.

CANDIDATE PROFILE

The ideal candidate(s) will have the following qualifications:

For the Financial Analyst

- *Background in Financial Analysis in the vegetable/fruit production market
- *Minimum 15 years of experience in domestic US and international financial sector
- *Minimum M.A. in Finance or Economics
- *Should have knowledge of Latin America & Caribbean regions

For the Marketing Study Volunteer:

- *Background in Marketing with strong aptitude in Promotion of vegetable/fruit sector
- *Ideally would have experience in product introduction into new market in North America from LAC region
- *Minimum 15 years experience in domestic/international marketing
- *Should have knowledge of Latin America & Caribbean regions

Contact Sheet

VOCA/Washington

Dennis J. Diligent
Program Officer
50 F. St., NW, Suite 1075
Washington, DC 20001
tel: 202-383-4961
fax: 202-783-7204

USAID/Jamaica

Mrs. Jennifer Rousseau
Project Officer
USAID/Jamaica
6B Oxford Rd.
Kingston 5
tel: 809-926-3645-9
fax: 809-929-3750 or 2

AESP/PMU Jamaica

Mr. A.C. Allen
Project Manager, AESP
Ministry of Agriculture
Hope Gardens
Kingston 6
tel: 809-927-1872
fax: 809-927-1872

Jamaican Exporters' Association

Mrs. Beverley Morgan
Director

13 Dominica Dr.
Kingston 5
tel: 809-929-3831 or 929-1292
fax: 809-929-3831

Inter-American Institute for Cooperation on Agriculture (IICA)

Mrs. Hyacinth Chin-Suc
Technical & Administrative Coordinator
11 Fairway Ave.
Kingston 5
tel: 809-927-6462 or 927-4337 or 978-0781

ACCOMMODATIONS

Courtleigh Hotel
31 Trafalgar Rd.
Kingston 10
tel: 809-926-8174

The Courtleigh has air-conditioned rooms, satellite television, full-service restaurant and bar, swimming pool, and is located in New Kingston, approximately a 5 minute drive to USAID, JEA, IICA, and 10 minutes from the MOA. Rates are at US\$78 per night. There are a variety of restaurants, banks, shops, and supermarkets within walking distance.

If and when available, full-service apartments are located directly adjacent to the Courtleigh and would be rented through:

Mr. Owen Pitter
Allison, Pitter & Co.
1 Tremaine Rd.
Kingston 6
tel: 809-927-4724/5 or 927-9133

You will be advised prior to your departure where reservations have been made for you, with the knowledge that you may change accommodations to a comparable hotel once in-country if desired.

VARIOUS COMMENTS

You will be required to view a USAID security video upon arrival in Kingston. The video is approximately 10 minutes long and will be arranged upon arrival by Mrs.

Rousseau at the Mission. You will be briefed by Mrs. Rousseau at USAID offices the following morning after your arrival.

Arrangements will be made by the AESP/PMU to pick you up at the airport and provide you with ground transportation throughout your project. In the event that no one is at the airport to pick you up, please take a cab or courtesy bus to the hotel and contact any one of the people listed above of your arrival.

The rate of exchange is currently J\$31 to US\$1. Credit cards and travelers checks are widely accepted.

No shots or other immunizations are required for Jamaica. Water is potable throughout the Island. Valid passports are required for travel and a exit tax of J\$400 is levied at the airport prior to your departure.

Communications are very good throughout the island for both domestic and international calls.

LETTER OF UNDERSTANDING
BETWEEN THE
INTER-AMERICAN INSTITUTE FOR COOPERATION
ON AGRICULTURE (IICA)
AND
VOLUNTEERS IN OVERSEAS COOPERATIVE ASSISTANCE (VOCA)

The Inter-American Institute for Cooperation on Agriculture (IICA) is the specialized agency for agricultural and rural development of the Inter-American System. IICA concentrates its efforts on five high priority areas of major concern to its member countries: Agricultural Policy Analysis and Planning; Technology Generation and Transfer; Organization and Management for Rural Development; Trade and Integration; and Agricultural Health; and

Volunteers in Overseas Cooperative Assistance (VOCA) is a private non-profit, international development organization which works to increase economic opportunities and incomes for members of all types of cooperatives and small- and medium-scale enterprises that are agriculture based. This is accomplished through highly-skilled volunteers who provide short-term, technical assistance. With 26 overseas offices and 6 United States based offices, VOCA is currently at work in more than 52 countries.

WHEREAS:

A General Agreement was signed between IICA and VOCA on July 1, 1994, in which the framework and legal basis were established for the signing of future Letters of Understanding; and

IICA and VOCA have expressed a desire to develop, coordinate, and field VOCA short-term technical volunteers in support of IICA activities on a regional (LAC) basis.

NOW THEREFORE, the parties hereto agree as follows:

Article 1

Objective:

- a. VOCA will provide volunteer consultants in support of activities promoted by IICA within the Latin American/Caribbean region during the remainder of the VOCA (October 1 to September 30) 1994 fiscal year and during the entire 1995 fiscal year.
- b. These consultants will support those IICA activities which are directly related to promoting and strengthening programs and objectives that IICA may be carrying out on a national or regional basis.

Article 2

Responsibilities of signing Parties:

- a. VOCA will provide an extensive orientation for IICA Directors, Representatives and technicians regarding VOCA as an organization, the methodology and criteria it uses regarding the effective utilization of VOCA's resources. This orientation will be provided through written and telephone communications and, on a case by case basis, direct visits to IICA Headquarters or its Offices.
- b. IICA Headquarters and its Offices will identify and prioritize requests for short-term technical assistance, which will eventually be addressed by specialists recruited and fielded by VOCA.
- c. IICA Headquarters and its Offices will be responsible for the development and timely referral of the Requests for Assistance and the Scopes of Work for each VOCA assignment. These requests/scopes of work will be prepared according to standard VOCA guidelines and/or formats.

- d. Upon signature of this Letter of Understanding, IICA Headquarters, in coordination with the Offices that request the assistance of VOCA volunteers, will prepare six-month work programs that include all the missions needed for that period. In doing this consideration will be given to the fact that VOCA requires three months to process the request, and funding for the volunteers must fall within its fiscal year.
- e. Once VOCA has analyzed and accepted the work programs, said programs will be incorporated into the present Letter of Understanding, as an addendum to same. The initial Requests for Assistance and the Scopes of Work are included in the Annex of this Letter of Understanding and are an intergral part of same.
- f. The VOCA/LAC office will be responsible for the review and adaptation those Requests for Assistance and Scopes of Work as received from the IICA Headquarters and its Offices.
- g. VOCA/Washington will assure that IICA Headquarters receives copies of the final version of Requests for Assistance and Scopes of Work for each programmed VOCA assignment, which will be included pursuant to the above paragraph e.

Article 3

Contributions of the Parties:

- a. Volunteers in Overseas Cooperative Assistance, at its own expense, will cover all those costs that are incurred;
 - i) in the recruitment of the volunteer;
 - ii) transportation to the principal office of the requesting beneficiary organization and return to the U. S.; and
 - iii) the costs of food, lodging, clothing, care, passport immunizations, and insurance against loss from accident, illness, or theft of the volunteer.

- b. Volunteers in Overseas Cooperative Assistance will cover those central and regional costs incurred in the technical review and support of those Requests for Assistance and Scopes of Work as submitted by IICA.
- c. IICA will assure that it will either directly cover or share coverage with the beneficiary organizations with whom the volunteer (s) work or ensure that said organizations cover the following costs:
- i) In-country transportation, including travel to and from the volunteer's lodging to work daily;
 - ii) the costs of providing an office suitable to the volunteer's work;
 - iii) equipment related to the specialist's work;
 - iv) secretarial support in preparing memos, the volunteer's report and other secretarial support; and
 - v) at least one full-time professional counterpart who will act as the direct recipient of the knowledge and technologies to be transferred by the VOCA volunteer consultants and who could serve as interpreter, on a case by case basis.
- d. IICA will cover those costs incurred at its Headquarters and Offices during the promotion of VOCA activities, the development of Requests for Assistance, the development of Scopes of Work, the in-field support of those volunteers fielded as a result of these efforts and the evaluation of their activities. Upon agreement by both parties and on a case by case basis, VOCA agrees to share the costs of activities detailed in this paragraph.
- e. In cases where IICA Headquarters or the IICA Offices can cover some of the costs mentioned in the above paragraph a., VOCA will return any savings to the unit which generated them, by using them to fund additional missions or to extend a mission, as long as it does not exceed the three months established by VOCA for assigning a volunteer.

Article 4

Mechanisms of coordination and decision making:

- a. VOCA and IICA, through mutual agreement, will decide in which countries of LAC they will carry out joint activities.
- b. Through its six regional recruitment offices, VOCA will be fully responsible for the identification, selection and timely recruitment of volunteers for each Scope of Work as received.
- c. Upon recruitment of each volunteer, the respective regional recruitment office will send a copy of the volunteer's qualifications (C. V.) to the pertinent IICA Office, to IICA/Headquarters, to VOCA/Washington and to VOCA/LAC. A copy of the volunteers' travel itinerary will also be sent at this time.
- d. As per USAID requirements, (funding source for this agreement) VOCA will be responsible for advising the pertinent USAID local mission of the volunteers' arrival.
- e. Prior to and/or upon arrival in the country, IICA is responsible for providing:
 - i) A detailed work plan, prepared prior to the volunteer's arrival;
 - ii) in-country transportation;
 - iii) a suitable office space;
 - iv) secretarial support;
 - v) at least one full-time volunteer counterpart, who could serve as interpreter, on a case by case basis; and
 - vi) its full cooperation so as to maximize the effectiveness of the specialist's contributions.

- f. IICA is encouraged to facilitate the full or partial cooperation of the beneficiary organizations/communities in the provision of the above detailed requirements.
- g. IICA recognizes that VOCA specialists are volunteers, receiving no salary, fees or honorariums from VOCA or from IICA.
- h. IICA understands that VOCA volunteers have no authority to bind VOCA to any contract or agreement and agrees to bring no legal action nor assert any claim against VOCA in connection with this agreement or specific volunteer assignment.
- i. Each volunteer and VOCA will be fully responsible for assuring that a final report, which details final observations, conclusions and recommendations of each assignment, will be provided to IICA. All final reports will follow the VOCA standard format.
- j. IICA will assure that each volunteer's final report is translated into the pertinent local language and distributed amongst the beneficiaries as needed. Although these publications will be the sole property of IICA, credit will be given to VOCA in same.

Article 5

Term and Amendment

- a. It is fully understood by both parties that this Letter of Understanding is valid only during VOCA's fiscal year 1994 and 1995 (October 1 thru September 31 of each year).
- b. Both parties agree that upon revision of the initial results, this Letter of Understanding may be modified upon mutual agreement and broadened to include the funding and fielding of VOCA volunteer assignments under financial agreements that are above and beyond VOCA's current sources of funding.

- c. This Letter of Understanding may be canceled, modified or extended upon mutual consent by both parties, and will enter into effect immediately upon signature by the last party.

For the Inter-American
Institute for Cooperation
on Agriculture (IICA)



Carlos A. Aquino
Director General

For the Volunteers in Overseas
Cooperative Assistance (VOCA)

x 
Robert Cater
Director Latin America/Caribbean

Date: 23 de agosto de 1994

Place: IICA Headquarters
San José, Costa Rica

Date: 29 de agosto de 1994

Place: VOCA/LAC Office
Guatemala City

TECHNICAL ANNEX

Index of Short Term Missions

Country: Guyana

Title of the Proposal: Milk and Beef Processing and Marketing in Guyana

Specialists Requested: Meat Processing Specialist

Food Technology Engineer

Economist

Country: Guatemala

Title of the Proposal: Berries Productions Process Improvement

Specialist Requested: Production, Harvest and Post-harvest Manager

Country: Guatemala

Title of the Proposal: Agroindustrial Improvement

Specialist Requested: Fruit & Vegetable Processir of Specialist

Country: Jamaica

Title of the Proposal: Financial Analysis of Mini-sett Yam Produced for Export

Specialist Requested: Financial Analyst

Country: Jamaica

Title of the Proposal: Marketing Feasibility of Mini-sett Yam Export

Specialist Requested: Marketing Specialist

1. INTRODUCTION

TITLE:

Milk and Beef Processing and Marketing in Guyana

COUNTRY:

Guyana

STARTING DATE:

As soon as possible

LENGTH OF ASSIGNMENT:

Six (6) weeks

SUMMARY OF ASSIGNMENT:

One of the objectives of this assignment is to evaluate the system of milk marketing (collecting, cooling, transporting) in specific regions and to develop a project that would be aimed at improving the milk marketing system in those areas. Associated with the development of such a project would be the assessment of the existing facilities at the Georgetown Milk Plant and designing a project for the modernization of the Plant to include UHT facilities and to facilitate a greater degree of product diversification.

The dual purpose nature of cattle production in Guyana (both milk and beef production) makes it necessary that the project also include a similar evaluation and feasibility study for the establishment of an abattoir and meat plant facilities of international standards, in the coastal region of Guyana. The lack of such a facility is one of the constraints to Guyana's ability to export meat.

2. REQUESTING ORGANIZATION: Inter-American Institute for Cooperation on Agriculture (IICA) Office in Guyana.

IICA has been assisting Guyana in livestock production for over ten years and animal health for four years. These actions have contributed to increased milk production and better documentation on the livestock subsector. IICA has promoted the formation of the Coordinating Committee for Cattle Development which integrates all relevant institutions from the private and public sectors. Present IICA staff working in livestock activities includes two Veterinarians and one Agricultural Economist.

ADDRESS:

18, Brickdam, Stabroek,
Georgetown, Guyana.

PHONE/FAX:

Tel: (592) 2-68835;
Fax: (592) 2-58358/76219

CONTACT:

Mr. Jerry La Gra,
IICA Representative, Guyana.

3. BACKGROUND INFORMATION

3.1 Guyana: Country Overview

Guyana is located on the northern coast of South America and is bounded on the north by the Atlantic Ocean, on the south and south west by Brazil, on the East by Suriname and on the west by Venezuela.

The most recent Household Income and Expenditure Survey (1993) estimates a total population of about 730,000 persons of which approximately 65% have levels of income below the poverty line. Some eight-seven percent of the population live on the narrow coastal strip which varies from about 10 to 40 miles in width. Georgetown, the capital city has an estimated population of 150,244 persons.

Guyana's population is comprised of six ethnic groups: East Indians, Negroes/Blacks, Amerindians, Chinese, Portuguese and Europeans.

Guyana is a country with diverse resources and great potential. The agricultural sector plays a major role in the economy. The contribution of agriculture, forestry and fishing to GDP fluctuated within the range of 23 to 26 percent over the period 1970-1990. Within this sector, sugarcane and rice cultivation plays a dominant role. There is great potential for the livestock sub-sector to make a greater contribution to the economic development of Guyana. However, a number of constraints must be overcome before the potential of this sub-sector is fully realized.

Guyana's mineral resources also make a significant contribution to GDP. Bauxite, gold, and diamonds are mined in the interior areas of Guyana.

The development of the manufacturing sector in Guyana has been hindered by unreliable utility services and the deteriorated state of basic infrastructure. Recent government efforts in terms of policy and funding are geared at addressing the major issues of the manufacturing ~~sector~~.

3.2 Cattle Production

3.2.1 Characteristics of the Cattle Population

Guyana's cattle population of about 261,000 head is concentrated in the coastal regions, (Table 1). Available data indicates that this represents about 90 percent of the national cattle population. More than half of these animals are located in small herds of less than 50 head. A few cattle farms are also located on the Interior Savannahs of Guyana, which include the Rupununi Savannah and the Intermediate Savannah.

Table 1:

Distribution, Composition and Changes in the Coastal Cattle Population 1988-1992

CATEGORIES IN YEARS		
	TOTAL	% CHANGE
1. TOTAL # OF CATTLE		
1988	242466	
1990	279234	15.0
1992	260530	-7.0
2. No. of Cows		
1988	97006	-
1990	110953	14.0
1992	106939	-4.0
3. No. of Female Calves		
1988	31558	-
1990	33197	5.0
1992	33699	2.0
4. No. of Male Calves		
1988	-	-
1990	27465	-
1992	28845	5.0
5. No. of Heifers		
1988	49611	-
1990	62458	20.6
1992	45893	-27.0
6. No. of Breeding Bulls		
1988	4446	-
1990	5979	35.0
1992	7209	21.0
7. No. of other cattle		
1988	-	-
1990	39183	-
1992	37945	3.0

Source: Ministry of Agriculture Cattle and Milk Production Survey

In Guyana there is no strict classification of cattle as beef or dairy animals. About 41 percent of the cattle found in the coastal regions are adult females. Approximately 15 percent of these cows can be considered to be animals genetically more suited for milk production.

Considering the genetic character of the national herd, it can be said that it is made up predominantly of 'creole' type animals. These are basically the descendants of Bos indicus breeds. In most coastal regions there has been the introduction of breeds such as American Brahman, Santa Gertrudis and Hereford to improve beef production and as American Brahman, Santa Gertrudis and Jersey breeds as a result of various efforts in dairy improvement. Holstein/Freisian and Jersey breeds as a result of various efforts in dairy improvement. As a consequence, about 10-15% of the national cattle population may be regarded as dairy types, another 60-70% as dairy/beef types while the remaining 15-30% exhibit in general the characteristics of beef types.

3.2.2 Production Trends

3.2.2.1 Milk Production

Over the past 10 years a great deal of effort has been devoted to the development of the cattle industry in Guyana, notably the dairy sector. The National Dairy Development Programme (NDDP), established in March 1984, has spearheaded the effort to make Guyana self-sufficient in milk production. Table 2 shows the domestic production of fresh milk during the period 1983-1992.

Table 2: Domestic Fresh Milk Production 1983-1992

Year	Production of Milk (000 Lit)	Annual Percentage Change
1983	12,729	-
1984	16,366	28.6
1985	21,821	33.3
1986	23,639	8.3
1987	27,731	17.3
1988	28,799	3.7
1989	31,822	10.5
1990	34,692	9.0
1991	36,400	4.9
1992	39,400	8.2

Source: NDDP Estimates

It has been estimated that the national requirement for fluid milk is about 55 million litres (12 million gallons). Table 2 shows that at the end of 1983 the level of fluid milk production in Guyana was below 13 million litres, representing approximately 25% of the national requirement.

In 1992, domestic production had increased to about 39.4 million litres representing about 71% of the estimated national requirement.

3.2.2.2 Beef Production

Cattle production on most farms on the coastal plain is a secondary agricultural activity. Therefore relatively small amounts of inputs are put into cattle production. The animals reared are dual purpose animals, used for both milk and beef production. Animals are often slaughtered to provide farmers with quick cash and for this reason farmers often refer to their cattle as a form of savings account. Farmers may also sell some cattle for slaughter during the dry season when conditions make it difficult to maintain many animals. About 70 percent of the beef produced in Guyana comes from small cattle farms on the coastland.

Table 3 shows that national beef production increased from 1,600 tons in 1985 to 3,700 tons in 1992. Between 1988 and 1990, beef production increased by 40%. A cattle and milk production survey in 1990 showed that the national herd increased by 15% for the same period (see Table 1). The increase in beef production between 1988 and 1990 seems to be a function of the increased productivity of the national herd, since the slaughtering of over 45,000 animals did not reduce the total cattle population; in fact the cattle population continued to grow.

Table 3: National Beef Production

Year	Production (Tons)	% Annual Increase
1985	1,600	-
1986	1,700	6.3
1987	1,800	5.9
1988	2,000	11.1
1989	2,400	20.0
1990	2,800	16.7
1991	3,000	7.1
1992	3,700	23.3

Source: Ministry of Agriculture, Planning Division

In contrast to this situation, the 23.3% increase in national beef production between 1991-1992 coincided with a 15% decrease in the cattle population. This increase cannot therefore be considered as a positive trend for beef cattle production in Guyana. It was a result of farmers' efforts to concentrate more effort on rice production, due to favourable market conditions for rice. Many farmers therefore significantly reduced their herd size. Death losses due to a suspected bovine rabies outbreak on the Essequibo Coast also contributed to the reduction in the national cattle population during this period.

3.2.2.3 Marketing and Processing of Milk

Marketing of milk and milk products in Guyana can be considered to be in the very early stages of development. There is no organised system for collection, processing and distribution of milk. Quality and sanitary standards are not enforced and there is no diversification in the product market.

The lack of adequate infrastructure in terms of roads, electricity and transportation, has conspired against the development of a distribution network, that would allow for the adequate handling of such a perishable product throughout the distribution chain from the producer to the final consumer.

3.2.2.4 Abattoir and Meat Plant Facilities

One of the most important constraints to Guyana's ability to export meat to other Caribbean countries is the obsolete Georgetown Municipal Abattoir, constructed in 1933, which is controlled by the Municipality of Georgetown. The slaughter of cattle, pigs and small ruminants is carried out under primitive and unhygienic conditions, which do not meet with the necessary sanitary standards for export. Besides preventing exportation, these conditions pose a health risk both to Guyanese consumers of meat and to laborers in the abattoir.

Due to inadequate facilities and equipment, cattle, pigs and sheep are slaughtered on the abattoir floor, then dragged and carried on men's backs to various work stations. The water supply and drainage are inadequate, resulting in generally unsanitary conditions. Animals are not washed before being slaughtered. Lairage facilities are inadequate and often overcrowded, resulting in bruising and the occasional escape of animals. Because chute facilities are not in place to restrain animals, ante-mortem examination is difficult or impossible. Facilities for the post-mortem inspection of heads and organs are inadequate or nonexistent. There is no system of carcass and organ identification, making disease surveillance with traceback to farm of origin difficult or impossible. According to present national regulations, post mortem examination is performed by Public Health Inspectors who are not veterinarians or veterinary technicians. As these inspectors do not have sufficient technical knowledge and as no laboratory equipment (microscope, microbiology, reagents) are available, laboratory confirmation of disease

is not-possible. Inspected carcasses are manually removed and thrown on trucks, carts, vans or car trunks to be transported to markets or meatshops. Refrigerated vehicles or holding facilities are not available. Condemned organs and carcasses are transported by open carts to the city incinerator, constituting a risk to public health. There are no restricted areas in the slaughterhouse; anyone can enter and leave at will, creating the possibility of meat being disposed of illegally. Butchers and potential buyers have been observed trying to influence inspectors in decisions regarding condemnation.

4. BENEFICIARY ORGANISATION PROFILE

4.1 General Beneficiaries

The proposed project would be of direct benefit to a number of coastal livestock farmers, many of whom are presently only milking a small percentage of their cattle herd as a result of the difficulty of marketing milk at a profitable price.

A number of milk collectors would also benefit from improvement of the marketing system. It is proposed that some milk collectors be assisted in operating cooling centers. Presently, milk collectors cool their milk by placing chunks of ice in the milk containers. This reduces the quality of the milk and does not adequately cool it for transport to the milk plant in Georgetown.

Upgrading the facilities at the LIDCO Milk Plant would improve the quality and quantity of milk processed and enable more customers in the city center to readily purchase milk and milk products from retail outlets.

The establishment of an abattoir of international standards would facilitate the export of meat and meat products. This would open the door for livestock producers to be foreign exchange earners, thus increasing beef prices and profitability. This is quite likely to stimulate the interest in cattle production and promote a much needed element of diversity in the agricultural sector.

4.2 Livestock Development Company Limited (LIDCO)

The Livestock Development Company Limited (LIDCO) is a limited liability company with 15 shareholders including Guyanese Commercial Banks, Insurance Companies and Agri business organisations along with the Government of Guyana as a minority shareholder, whose mandate is the commercial development of the cattle industry in Guyana with the aim of achieving national self-sufficiency in milk and beef and eventually exports.

The Company, which is a registered joint stock company, was established as a precondition to improve the effectiveness of the Guyana Beef Cattle Project financed by the International Development Association of the World Bank. LIDCO actually commenced operations in the latter part of 1973 with two operations (the Mara and Pirara ranches) but has grown over the years and at present the LIDCO group of eleven (11) enterprises includes five beef operations, four dairy farms, a milk processing plant and a seed paddy production unit. The company has a staff complement of approximately 200 including fourteen Managers (with two vacancies).

Guyana is self-sufficient in beef at present with a national herd of some 260,000 head of cattle. LIDCO, with a herd of approximately 13,000 heads, produces in the vicinity of 20% of national beef supplies. With beef being the cheapest form of animal protein in the country, Guyana is certainly ready to enter the export market in this commodity.

The country is not self-sufficient in milk, however. Indeed while some strides have been made in this direction (NDDP) considerable increased production is mandatory and, with the present "open economy" the marketing of locally produced pasteurised milk is proving extremely difficult with severe competition from imported milk forms (UHT and powdered milk) which are being "dumped" on the local market.

It is in these two areas of activity, the establishment of an abattoir cum feedlot that meets international standards, and the marketing of processed milk (and recommendations on the form, packaging, etc), that the company requires assistance.

4.3 National Dairy Development Programme (NDDP)

The National Dairy Development Programme (NDDP) was established in March 1984 as an Agency under the Ministry of Agriculture responsible for the promotion of National Dairy Development.

Objectives of the Programme include:

1. To increase milk production via improvements in pasture availability/management, dairy herd management and breeding policies.
2. To be instrumental in helping to improve the facilities relative to the collection, processing and distribution of milk and milk products throughout Guyana in keeping with acceptable hygiene and nutritional standards.
3. To achieve full self-sufficiency in milk products in the shortest time possible and replacing present imports with domestic production.
4. To provide an alternative and lucrative means of earning a living.

As of March 1994 the NDDP had a staff of 29 persons including the Programme Director, Senior Dairy Officer, 3 Senior Dairy Assistants, Senior A.I. Assistant, 14 A.I. Technicians and 9 Administrative staff.

Major NDDP activities undertaken by the above staff consist of:

1. The improvement of the nutritional status of the animals via grass, grass legume combinations and supplements.
2. The improvement of the predominantly creole cow towards a more high yielding animal through artificial insemination.
3. The improvement of the milk collection, procession and marketing systems.
4. The improvement of the sociological and educational processes as they relate to dairying.

5. PROJECT DESCRIPTION

5.1 Project Components

5.1.1 Milk collection system

The milk collection component of the project would be aimed at increasing production of milk from the Mahaica-Mahaicony-Abary Region of Guyana. This region is located on the coastal plain about 50 miles from the capital city Georgetown. This region has the highest concentration of cattle and produces more than 25 percent of the milk produced in Guyana. The production potential of this region is hindered by the absence of a milk marketing system.

The project component is expected to address this problem and is proposed to include the following activities:

- evaluation of possible locations for refrigerated collecting centers;
- feasibility study of operating a collection center;
- organization of farmers and milk collectors into groups, and develop management plan for cooling centers;
- evaluation of on-farm production and suggesting of methods for improving milk storage and handling practices, and
- recommendations for milk collection and transport to and from the cooling centers.

5.1.2 Modernization of Processing and Marketing System

The modernization of the LICDO Milk Plant would involve the following activities:

- analysis of market and market opportunities making recommendation as to products and volumes to be produced;
- an assessment of the existing facilities at the Plant in view of determining best options for processing and expansion of operations considering the capital investment required for installing modified pasteurizing equipment or UHT facilities and to facilitate product diversification;
- feasibility study of the proposed upgraded operation.

5.1.3 Establishment of a modernized abattoir

The establishment of an abattoir of internationally accepted standards would involve the following activities:

- evaluation of existing abattoir, beef production and marketing systems.
- estimation of capacity/meat processing facilities and equipment required for new abattoir;
- determine new abattoir location;
- design and plans;
- export and domestic marketing arrangements and public health related matters;
- personnel requirement - recommendations for training program, and
- preparation of feasibility study document.

6. ADDITIONAL COMMENTS

- 1) The volunteers would work in collaboration with technicians from IICA, CARDI (Caribbean Agricultural Research and Development Institute, the Ministry of Agriculture, NDDP (National Dairy Development Program) and LICDO (Livestock Development Company).

- 2) The volunteer counterpart will be Charles Carmichael, Agricultural Economist, Peter Davis, Livestock Productionist and Sandra Vokaty, Animal Health Specialist at IICA Office in Guyana.
- 3) Logistical support will be coordinated by Jerry LaGra, IICA Representative in Guyana.

7. DESIRED VOLUNTEERS PROFILE

It is recommended that a team of three VOCA volunteers be assigned to this project. The team should include a Meat Processing Specialist, a Food Technology Engineer with specific expertise in dairy processing and marketing and an Agricultural Economist.

Terms of references for Meat Processing Specialist.

1. At least a M.Sc degree in Meat processing technology.
2. At least five years experience in slaughter and meat processing plants.
3. A sound knowledge of the international regulations regarding slaughter and meat processing plants.
4. Adequate skills in the designing of meat plants and the selection of the adequate equipment based on international and national standard regulations.
5. Language required: English

Terms of reference for Food Technology Engineer

1. At least ~~M.Sc~~ M.Sc degree in the relevant discipline.
2. At least five years experience in dairy processing technology and dairy management.
3. Working experience in a dairy plant producing diversified dairy products.
4. A knowledge of milk marketing systems, including the operation of cooling stations.
5. Language required: English.

Terms of reference for Economist

1. At least a M.Sc degree in Economics or Agricultural Economics.
2. A good knowledge of beef and dairy cattle production in tropical environments.
3. At least five year experience in project formulation and feasibility studies particularly with regards to agricultural production.
4. The volunteer should have experience with milk production/marketing cooperatives.
5. Language required: English.

SCOPE OF WORK
March 24, 1994)

I. **TITLE:** AGROINDUSTRIAL IMPROVEMENT
COUNTRY: Guatemala
START DATE: August 1st 1994
LENGTH OF ASSIGNMENT: Six (6) Weeks

**SUMMARY OF
ASSIGNMENT**

The Fruit and Vegetable Development Program -PROFRUTHA- has requested the services of a VOCA Volunteer to assess them in fruit and vegetable processing. The main objective of this assignment will be to improve the process of preparation, formulation, transformation and management of processed material.

II. **REQUESTING**

ORGANIZATION: FRUIT AND VEGETABLE DEVELOPMENT PROGRAM -
PROFRUTHA-

ADDRESS: 3a Calle 6-11 zona 9,
Oficina 607-611, Planta Baja
Guatemala, C.A.

PHONE/FAX: (502)2 318219 319267
(502)2 3273606 (tel.fax)

CONTACTS: **PROFRUTHA**
Ing. Jorge Escobar -Executive Director-
Ing. Jorge Prado -Agro-Industry Unit
Coordinator-

VOCA/LAC
Jorge Salzar/Reyna De León de C.
(502)2 318642
(502)2 345895 (fax)

II. Target Organization Profile

The Fruit and Vegetable Development Program was established in 1989, as an effort made by the Ministry of Agriculture, Livestock and Food for the establishment and improvement of fruit trees plantations. The above is a response to a limited commercial exploitation of said species in Guatemala.

The Program is responsible for generating and carrying out projects to support fruit development in the different weather and land conditions that the country offers.

The Program's area of action has been primarily focused in tropical zones (0-800 m.a.s.l.) where tropical species have been upgraded. Among these species the following ones can be mentioned: mango, papaya, pineapple, citric and others. Additionally, the Program has covered to a lesser degree the Central and Western Highlands, where the weather ranges from lukewarm to cold and where plantations of temperate climate fruit tree, raspberries, blackberries, etc. have been promoted.

The Program has established a strong vertical and horizontal organizational structure in order to carry out its activities. The vertical organization is based on five basic components:

- a. Extension and Technology Transfer;
- b. Production of Vegetative Material;
- c. Training of Technical Personnel; and
- d. Applied Research.

The horizontal organization consists on the delimitation of the geographical areas that the program covers in work regions with the same characteristics. In these regions controlled and supervised actions are developed by specific personnel assigned to each of them.

Jointly with the actions aimed at the establishment of new plantations of fruit trees and the improvement of existing ones, the Program has established a specific project for Fruit and Vegetable Industrialization and Marketing with the idea of promoting agro-industries.

III. Industrialization and Marketing of Fruits and Vegetables Project Background

This Project is intended to promote small agroindustrial plants supported and managed by the same producers. In order to achieve its purposes the project has two basic components:

- a. **Promotion and Motivation:** The primary objective of this component is to motivate individuals and organized groups through their participation in training

and demonstrations of industrial processes.

These agroindustrial processes include:

1. **Bottled Products:** Marinated vegetables, jellies, marmalades, syrups, juices, nectars, etc. made of fruits such as apple, peach, pear, plum, mango, pineapple, papaya, raspberry, blackberry, etc. and from a variety of vegetables.
2. **Dehydrated Products:** fruits and vegetables. To develop these agroindustrial processes, the project has a portable bottler plant (capacity: 275 kg/hour), a fixed bottler plant (capacity: 275 kg/hour) located in the Central Highlands of Guatemala and a dehydrator plant (capacity: 180 kg/hour) located in the Western Highlands of the country.

b. **Marketing and Technical Assistance**

Through this component, technical assistance services are provided to the fruit producers. These services include the development of feasibility studies, productive process research and market research.

IV. **Project Description:**

The Fruit and Vegetable Development Program -PROFRUTHA- has requested the services of a VOCA Volunteer to assess them in fruit and vegetable processing. The main objective of this assignment will be to improve the process of preparation, formulation, transformation and management of processed material.

The following is a brief description of the areas of work that the VOCA Volunteer will be asked to carry out:

1. *Evaluate the present conditions of each of the 3 plants, including their housing, processing equipment, reception centers, etc.*
2. *Determine the potential to improve the quality and efficiency of the current and potential productive processes within the different lines of production.*
3. *Provide recommendations regarding means to reduce production costs without affecting quality standards.*
4. *Facilitate a training process (theoretical and practical) to the technical personnel assigned to each plant in the phases of preparation, formulation, processing, management, etc. of the different products processed by the Program. (For this*

purpose a detailed work-plan will be designed between the Volunteer and the Technical Director of the Program).

5. *Research and provide appropriate recommendations regarding the upgrading and diversification of fruit and vegetable processing technologies.*
6. *Suggest appropriate means to improve the storage of the products obtained in the plant using refrigeration and environmental controls techniques.*
7. *Develop a final report, directed to PROFRUTHA, in which final observations, conclusions and recommendations will be detailed.*

V. Description of Guatemala:

Guatemala (108,889 square Km.), is the most populous of the Central American republics and the only one which is largely Indian in language and culture. Two-thirds of its territory is mountainous and 38% is forested. It has coastlines on the Pacific (240 km.), and on the Caribbean (110 km.).

About 55% of the total population (9.2 m in 1990) are Amerindian, while 4% are ladino and only 3% black or white. Birth rate: 39.3 per 1,000; infant mortality, 46.6 (1988); population growth: 2.9%. UN statistics show that 87% of the population live in poverty and 7% cannot afford a minimum diet. The indigenous people of Guatemala are mainly of Maya descent. There are 22 recognized language groups of the Guatemalan Maya, with 100 or more dialects.

A lowland ribbon, nowhere more than 50 km. wide, runs the whole length of the Pacific shore. Cotton, sugar, bananas and maize has been the traditional crops of this lowland. From this plain the highlands rise sharply to heights of between 2,500 and 3,000 meters and stretch some 240 km. to the N before sinking into the northern lowlands. A string of volcanoes rise boldly above the southern highlands along the Pacific. There are intermont basins at from 1,500 to 2,500 meters in this volcanic area. Most of the people of Guatemala live in these basins, drained by short rivers into the Pacific and by longer ones into the Atlantic rainfall.

The lower slopes of these highlands, from about 400 to 1,500 meters are planted with coffee. Above 1,500 meters is given over to wheat and the main subsistence crops of maize and beans. Deforestation is a serious problem. The climate, which depends upon altitude, varies greatly. The pronounced rainy season in the highlands is from May to October; the dry season from November to April. Frost is common from December thru February.

The equitable distribution of occupied land is a pressing problem. According to the 1979 census, there were 531,636 farms, of which 54% were less than 1.2 hectares, 34% were of under 7 hectares, while less than 1% were of more than 900 hectares.

In international trade the focus is still heavy on agriculture, which accounts for two thirds of total exports. Coffee is the largest export item, followed by sugar, but bananas, sesame and cardamom are also important crops. There has been an attempt to diversify agricultural exports with a consequent increase in tobacco, vegetables, fruit, ornamental plants, and beef exports.

The industrial sector has been growing steadily; these include rubber, textiles, paper and pharmaceuticals, chemicals, furniture, petroleum products, electrical components and building materials are also produced. The encouragement of "maquila" industries in the mid-1980's has attracted foreign investment, much of it from the Far East and has created low-paid jobs for about 80,000 guatemalans, mostly in garment manufacturing. "Maquila" exports rose from US\$20m in 1986 to nearly US\$207m in 1990.

Historically, Guatemala has had one of the most unstable political environments in the hemisphere. Most recently, during the months of April and May of 1993, a series of social crises provoked 3 coup de tat's within a 13 day period. With the Congressional election of Ramiro de Leon Carpio (former Human Rights Ombudsman) on the 6th of June, a new era of hope and has begun.

However, this democratic transformation will continue to encounter a variety of barriers: unemployment, lack of basic services, high levels of corruption and drug trafficking/money laundering. At the begining of 1994, the guatemalan government and the hemisphere's oldest insurgency movement have recommenced a negotiation process to subscribe a peace agreement.

VI. Additional Comments

1. The Volunteer is encouraged to come prepared with available didactic materials (slide shows, vdeos, pamphlets, etc.) that may help the assignment.
2. The volunteer's counterpart will be Mr. Jorge Prado (Technical Director of the Project of Agroindustry and Marketing).
3. The Volunteer will be asked about lyophobic processes. As such, if possible, the gathering of information on the process would be greatly appreciated.
4. The volunteer will be located in three cities: Guatemala, Quetzaltenango and Jalapa where good accomodations can be found.

SCOPE OF WORK
(June 6, 1994)

- I. TITLE: BERRIES PRODUCTIONS PROCESS IMPROVEMENT
- COUNTRY: Guatemala
- START DATE: August 15th 1994 or sooner
- LENGTH OF ASSIGNMENT: Six (6) Weeks

SUMMARY OF
ASSIGNMENT

The Fruit and Vegetable Development Program - PROFRUTHA- has requested the services of a VOCA Volunteer to assess them in the field production process improvement of the following crops: Blackberry, Raspberry and Blueberry. The main objective of this assignment will be to conduct a training process directed to the technical personnel of PROFRUTHA, regarding the different agricultural cares to be considered to improve the productivity of the mentioned crops.

II. REQUESTING

ORGANIZATION: FRUIT AND VEGETABLE DEVELOPMENT PROGRAM - PROFRUTHA-

ADDRESS: 3a Calle 6-11 zona 9,
Oficina 607-611, Planta Baja
Guatemala, C.A.

PHONE/FAX: (502)2 318219 319267
(502)2 3273606 (tel.fax)

CONTACTS: PROFRUTHA
Ing. Jorge Escobar -Executive Director-
Ing. Eddy Martínez -Technical Director-

VOCA/LAC
Jorge Salazar/Reyna De León de C.
(502)2 318642
(502)2 345895 (fax)

III. Target Organization Profile

The Fruit and Vegetable Development Program was established in 1989, as an effort made by the Ministry of Agriculture, Livestock and Food for the establishment and improvement of fruit trees plantations. The above is a response to a limited commercial exploitation of said species in Guatemala.

The Program is responsible for generating and carrying out projects to support fruit development in the different weather and land conditions that the country offers.

The Program's area of action has been primarily focused in tropical zones (0-800 m.a.s.l) where tropical species have been upgraded. Among these species the following ones can be mentioned: mango, papaya, pineapple, citric and others. Additionally, the Program has covered to a lesser degree the Central and Western Highlands, where the weather ranges from lukewarm to cold and where plantations of temperate climate fruit tree, raspberries, blackberries, etc. have been promoted.

The Program has established a strong vertical and horizontal organizational structure in order to carry out its activities. The vertical organization is based on five basic components:

- a. Extension and Technology Transfer;
- b. Production of Vegetative Material;
- c. Training of Technical Personnel; and
- d. Applied Research.

The horizontal organization consists on the delimitation of the geographical areas that the program covers in work regions with the same characteristics. In these regions controlled and supervised actions are developed by specific personnel assigned to each of them.

Jointly with the actions aimed at the establishment of new plantations of fruit trees and the improvement of existing ones, the Program has established a specific project for Fruit and Vegetable Industrialization and Marketing with the idea of promoting agro-industries.

IV. Fruit Trees Production Development Project Description:

This Project is intended to offer to the farmers different options to diversify their agricultural productions through fruit crops with high rates of profitability. The production of exportable volumes that gather high quality and competitive levels in the international market is pursued.

Within the services provided through this Project are included:

a. **Technical Assistance:**

This services are oriented to the establishment of new plantations, design and management of sanitary plans, fertilization, general cares, field inspections, post-harvest management and connections between buyers and producers.

b. **Nursery Establishment:**

The project provide orientation to the establishment of private fruit trees nurseries and their appropriate management. also the project has their own nurseries to produce and provide high quality plants for the establishment of new plantations.

c. **Research:**

Through specialized technicians the project detect problems or situations that limit the quality and quantity in the fruit production, and state studies of applied researching for the solution of said problems/situation.

Through the project technical assistance is provided for the following crops: Mango, Cashew, Avocado, Blackberry, Raspberry, Apple, Peach, Pear, Orange, Lemon, Grape, Papaya, Sapodilla, and other tropical fruit.

IV. **Project Description:**

The Fruit and Vegetable Development Program -PROFRUTHA- has requested the services of a VOCA Volunteer to assess them in the field production process improvement of the following crops: Blackberry, Raspberry and Blueberry. The main objective of this assignment will be to conduct a training process directed to the technical personnel of PROFRUTHA, regarding the different agricultural cares to be considered to improve the productivity of the mentioned crops.

The following is a brief description of the areas of work that the VOCA Volunteer will be asked to carry out:

1. *Conduct meetings with the Executive Director, Technical Director and other technical personnel of PROFRUTHA to develop a specific work plan (a preliminary work plan will be presented to the Volunteer at his/her arrival to the country).*
2. *Become familiar with the work area. This will be accomplished through meetings held with the PROFRUTHA personnel in the national and regional*

offices, as well as visits to the respective farms and to local Agro-industries that are processing this type of crops.

3. *During a four-week period provide a series of on-farm workshops to local producers. During this time, recommendations will be provided to improve the proceedings used to plant, cultivation practices, harvest and post-harvest technical procedures with the purpose of increasing their productivity and efficiency. During these workshops, the following aspects should have special emphasis:*

- Proper practices to plant this crop applying the appropriate technology;*
- Fertilization requirements;*
- Principal Pests and diseases that affect economically this crop;*
- New varieties which could be recommended to be introduced to the country;*
- Irrigation requirements;*
- Other cultural practices; and*
- Harvest and post-harvest practices, etcetera.*

4. *During these same workshops discussions will take place regarding advantages/disadvantages of different mechanism to trade their production.*

5. *The volunteer will be expected to design a basic agronomical plan for the crop production as well as for the harvest and pos-harvest management.*

6. *To provide orientation to make a characterization of potential areas for the introduction of the Blueberry crop.*

7. *Facilitate a national Seminar directed to private producers and technicians working in related fields, regarding the international market situation, varieties with high demand in the international market (USA and Europe) and with potential to be produced under the climate and soil conditions existing in Guatemala.*

8. *Develop a final report, directed to the beneficiary organization, detailing final observations, conclusions, recommendations and needed areas for follow-through.*

It should be noted that all of the above detailed objectives will be carried out in conjunction with the Volunteer counterpart from the Beneficiary Organization, who will be assigned to this project on a full time basis.

V. Description of Guatemala:

Guatemala (108,889 square Km.), is the most populous of the Central American republics and the only one which is largely Indian in language and culture. Two-thirds of its territory is mountainous and 38% is forested. It has coastlines on the Pacific (240 km.), and on the Caribbean (110 km.).

About 55% of the total population (9.2 m in 1990) are Amerindian, while 4% are ladino and only 3% black or white. Birth rate: 39.3 per 1,000; infant mortality, 46.6 (1988); population growth: 2.9%. UN statistics show that 87% of the population live in poverty and 7% cannot afford a minimum diet. The indigenous people of Guatemala are mainly of Maya descent. There are 22 recognized language groups of the Guatemalan Maya, with 100 or more dialects.

A lowland ribbon, nowhere more than 50 km. wide, runs the whole length of the Pacific shore. Cotton, sugar, bananas and maize has been the traditional crops of this lowland. From this plain the highlands rise sharply to heights of between 2,500 and 3,000 meters and stretch some 240 km. to the N before sinking into the northern lowlands. A string of volcanoes rise boldly above the southern highlands along the Pacific. There are intermont basins at from 1,500 to 2,500 meters in this volcanic area. Most of the people of Guatemala live in these basins, drained by short rivers into the Pacific and by longer ones into the Atlantic rainfall.

The lower slopes of these highlands, from about 400 to 1,500 meters are planted with coffee. Above 1,500 meters is given over to wheat and the main subsistence crops of maize and beans. Deforestation is a serious problem. The climate, which depends upon altitude, varies greatly. The pronounced rainy season in the highlands is from May to October; the dry season from November to April. Frost is common from December thru February.

The equitable distribution of occupied land is a pressing problem. According to the 1979 census, there were 531,636 farms, of which 54% were less than 1.2 hectares, 34% were of under 7 hectares, while less than 1% were of more than 900 hectares.

In international trade the focus is still heavy on agriculture, which accounts for two thirds of total exports. Coffee is the largest export item, followed by sugar, but bananas, sesame and cardamom are also important crops. There has been an attempt to diversify agricultural exports with a consequent increase in tobacco, vegetables, fruit, ornamental plants, and beef exports.

The industrial sector has been growing steadily; these include rubber, textiles, paper and pharmaceuticals, chemicals, furniture, petroleum products, electrical components and building materials are also produced. The encouragement of "maquila" industries in the mid-1980's has attracted foreign investment, much of it from the Far East and has created low-paid jobs for about 80,000 Guatemalans, mostly in garment manufacturing. "Maquila" exports rose from US\$20m in 1986 to nearly US\$207m in 1990.

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However, this democratic transformation will continue to encounter a variety of barriers: unemployment, lack of basic services, high levels of corruption and drug trafficking/money laundering. At the beginning of 1994, the Guatemalan government and the hemisphere's oldest insurgency movement have recommenced a negotiation process to subscribe a peace agreement.

VI. Additional Comments

1. The Volunteer is encouraged to come prepared with available didactic materials (slide shows, videos, pamphlets, etc.) that may help the assignment. Spanish language materials are preferred, but not essential.
2. The volunteer's counterpart will be Ing. Eddy Martinez -Technical Director-
3. The Volunteer will be based in Guatemala City, but will be traveling around rural area of the country. The climate conditions throughout the country during the assignment duration will be variable (hot and cold) and humid with frequent rains. Appropriate rain gear and hot and humid climate clothing advised. Women can wear slacks.
4. A meeting with the Agricultural Sector Officer in the AID/Mission is recommended. The volunteer is not advised to bring suits or formal dresses, but there may be an occasion to wear a tie.

VII. DESIRED VOLUNTEER PROFILE:

The ideal volunteer for this assignment would have to have the following characteristics:

- Possess a strong background in the Production, harvest and post-harvest management of the crops included in this project.

- Have experience providing and organizing the delivery of services of technical assistance for the above mentioned crops.
- Experience working with organizations which support small and medium size agricultural producers.
- The Volunteer should have a personality that allows, facilitates and promotes the interchange of knowledge, through a participatory process.

NOTE:

This Scope of Work has been translated by Laura Gómez who is not a native English speaker. Please excuse any grammatical or spelling error. THANKS A LOT.

SCOPE OF WORK

"FINANCIAL ANALYSIS OF MINI-SETT YAM PRODUCED FOR EXPORT"
and
"MARKETING FEASIBILITY OF MINI-SETT YAM FOR EXPORT"
in support of the

NATIONAL YAM EXPORT DEVELOPMENT PROJECT
AGRICULTURAL EXPORT SERVICES PROJECT/Project Management Unit
JAMAICAN EXPORTERS' ASSOCIATION

TARGET ORGANIZATIONAL PROFILE:

The Agricultural Export Services Project (AESP) was begun in 1990 as a project jointly funded by the Government of Jamaica and the United States of America (through the Agency for International Development-USAID). The project channels its' resources through sub-grantees (composed of cooperatives, producer groups, and other private agribusiness groups and other private and public sector entities) who provide services that are designed to achieve the following goals:

- * improve and increase the range and volume of the crops produced
- * improve the quality of export production
- * increase and improve the quality of export services

The AESP is designed to provide funding for both traditional and non-traditional crops. In Jamaica, the range of traditional crops include: bananas, citrus (oranges and mandarins), cocoa, coffee, and sugarcane. Non-traditional crops include, but are not limited to: tropical fruits (papaya, mango), yams, ornamental horticulture (anthurium), spices, and other vegetables.

Project funding is for a total of US\$16 million, with US\$10 million provided through USAID, and US\$6 million by the Jamaican government. The project is past the halfway mark in terms of funds disbursed and life (project phase-out is scheduled for 1996). The project portfolio is currently being revised by means of a technical review board called the Project Coordinating Committee (PCC) made up of representatives from the Ministry of Agriculture and its' Project Management Unit (PMU), the Jamaican Exporters' Association (JEA), and a USAID representative, who is a sitting member. The Chairman of the PCC is Mr. Clarence Franklin, who is also the Permanent Secretary to the Ministry of Agriculture. There are currently several sub-grantees receiving assistance under the AESP:

- *Western Banana Development Corporation
- *Tryall (Port Antonio) Banana Corporation
- *Non-Blue Mountain Coffee Growers
- *Richmond Fermentary (Cocoa/Coffee)
- *National Yam Export Development Project

The AESP project is coordinated by a Project Management Unit (the above-mentioned PMU) located in the Ministry of Agriculture. The staffing is currently made up of 2 full-time staff; Project Manager Mr. A.C. Allen, and a Technical Advisor, Mr. Earl Guise. It is expected that a Deputy Project Manager will be hired in the near future.

2 full-time staff

The Jamaican Exporters' Association (JEA) was formed in 1965 to represent the interests of the exporter community, particularly with regard to government export and development policy, and to promote exports as a central strategy of economic development.

In early May of 1994, VOCA signed a cooperative agreement between the Government of Jamaica (represented by the Ministry of Agriculture), the JEA, and the Government of the United States of America (represented by USAID) to provide short-term technical assistance to the project's sub-grantees on a demand basis.

PROJECT OVERVIEW

Agriculture and natural resources in Jamaica is an important productive sector in the economy of Jamaica. The sector provides nearly 8% of the GDP, employs 27% of Jamaica's labor (approximately 150,000 farm families are directly supported by agriculture), and 14% of the country's export earnings. After bauxite and tourism, agricultural exports comprise the third largest source of foreign exchange, amounting to US\$170,924,000 in 1991. In 1993, traditional exports (sugar, bananas, coffee, citrus) have earned US\$162.8 million, while non-traditionals (ornamentals, yams and other tubers, tropical fruits) earned US\$31.4 million. The category of non-traditional crops has become an area of major focus within the farming sub-sector, showing an increase in performance by 15.9% in export volume over 1991.

Over the past 15 years; however, the growth rate of Jamaica's agricultural sector has been less than expected. In an effort to reverse this, it was felt that innovative methods had to be exploited and introduced to encourage production. The Jamaica Agricultural Export Services Project was designed specifically for this purpose. The effectiveness of the project lies in using available and new methods to enhance the productivity and also improve and expand export related-services.

The National Yam Export Development Sub-Project is an integral component to the AESP. The Sub-Project aims at increasing the export of yams by promoting an improved production system based on the "Mini-Sett" technique, which was developed in Nigeria at the International Institute for Tropical Agriculture (IITA) and introduced

to Jamaica by the IITA in 1985 under a joint Government of Jamaica/Univ. of the West Indies/IITA Root Crop Project.

Mini-Sett is a new technology for growing yam for the export market. In traditional yam cultivation, the yam heads of large yams must be removed before exporting. In Mini-Sett technology however, small, whole yams can be produced that are more uniform in shape and do not need to be treated with chemicals before they are exported. Mini-Sett can also be grown on hillsides, make better use of planting materials so that more yam is harvested (yields using mini-sett technology are at 35,000-40,000 lbs. per unit acre compared to 10,000-12,000 lbs. obtained from traditional methods of technology), and does not require the large sticks that are used for traditional yams. The yams have the advantage of having a longer shelf-life as they are whole/uncut and do not have the "hollowing" frequently found in larger yams. Mini-Sett yams are in the size range of 0.3 to 2.0 kg. and are sold as whole tubers. They are available year-round and packed in 20.5 kg. boxes, usually in sawdust or coconut fiber to protect during shipment. They have a shelf-life of 2-3 months and can be boiled, baked, roasted, scalloped, or mashed, much like potatoes.

The principal agencies encharged with implementing the project are the Inter-American Institute for Agricultural Cooperation (IICA), RADA (Rural Agricultural Development Agency, which operates as the government extension service), JAMPRO (the Jamaican Promotions Corp.), and more specifically, a department of JAMPRO, known as JETCO, the MOA's PMU, and the JADF (Jamaican Agricultural Development Foundation).

The first phase (3 years) of the project is scheduled to phase-out in October '94. The specific objectives of the project were the following:

- promote general adoption of the Mini-Sett technique by 1000 farmers
- substitute 500 acres of traditional production with Mini-Sett
- increase yam exports by 20%

Using data gathered by RADA, the results of the project's phase were the following:

*over 1500 farmers have adopted the technology, with over 200 being involved with the method of production for over one year

*preliminary data suggesting upwards of 300 acres have been substituted

*exports of the commodity in 1992 was 13,374,000 kg, reflecting a 50% increase over the 8,931,000 kg. exported in 1989. The 1992 figure also shows a 19% increase over those of 1990. (in 1993, JETCO, the only company exporting mini-sett yams on a significant level, exported 26,884 lbs.).

Subsequent reviews made by the AESP Technical Advisor and others suggested that there seemed to be a sufficient amount of interest evinced by producers to continue the project and that an extension of the project through IICA and RADA should be considered.

Based on these evaluations, there was an official request by RADA to extend funding for the program for an additional 3 years.

It is against these generally optimistic indicators, however; that a few recommendations were made to warrant extension of the project. During the first phase, the original program consisted mainly of teaching the technology to farmers through demonstration plots focusing on the parishes of Clarendon, Manchester, Trelawny, St. Ann, St. Catherine, St. Andrew, and Hanover.

There was no marketing component, nor was there a comprehensive financial/cost analysis done to determine whether producing Mini-Sett yams for export was a financially sound undertaking. There are several market evaluations; primarily in the Bull Ring Wholesale Market in Birmingham, England, and shorter reports on the problems exporters face, but there is no relation of data relating exportable quality yields, money returns, market acceptance, and other relevant historical data that could provide a sounder basis on which to base future funding or other activities.

The current marketing strategy targets the "ethnic markets" of North America and the UK and has not examined nor pursued any niche markets outside of that or attempts to investigate other cross-over potential. It will also be necessary for any marketing study to provide a review of promotional options.

PROJECT OBJECTIVES

Given the above, the Jamaican Exporters' Association, in coordination with the AESP/Project Management Unit; has requested the services of two VOCA Volunteers to assist in perform a comprehensive financial analysis of producing the Mini-Sett yam for export, and another to provide a comprehensive market feasibility study on Mini-Sett yam for export. If at all possible, the projects should be carried out simultaneously, or allow the two volunteers to spend at least one to two weeks together in the field, with the marketing feasibility volunteer preceding the financial analyst.

It should be mentioned that the bulk of the actual production technology was carried out by RADA, with IICA being the financial manager during the first phase of the project.

For the second phase of the project, it is envisioned by IICA that small farmers (holdings up to 10 acres) will be the main target beneficiary group. How to

incorporate that sector into producing for economies of scale and organizing (there is currently no Yam Producers' Association) will be an important objective to be realized. IICA's plans are to hook up small farmers with a network of exporters (4-5 exporters have already been contacted), where the farmers and exporters would enter into a satellite contract farming arrangement where the exporters would be liable for providing the inputs (including training). The contract would have the farmer receiving a set farm gate price less the costs of inputs provided by the exporter. The proceeds would go into a revolving fund to support the creation of a Yam Growers' Association. IICA would initially be monitoring the revolving fund until the creation of the growers' group would come into being. It should be mentioned however, that "contract farming" in Jamaica does not have a very successful history.

The project objectives to be realized are as follows:

1) Upon arrival, conduct extensive interviews with representatives from the JEA, AESP/PMU, IICA, RADA, JAMPRO, and Kingston-based yam exporters. The Agricultural Marketing Corporation (AMC-Mrs. Rita Sands is a primary contact there) packing and handling facilities should be included, as well as facilities at Kingston Airport. Reports already completed should be consulted (a bibliography of reports available is attached to on the following pages).

2) Conduct field visits to a spectrum of yam producers for interviews and observations of production/supply capacity. (One of the more active producers, Mr. Richard Khourrie, of Mandeville should be included in any visit).

3) For the Marketing Feasibility Volunteer, draft a comprehensive report directed to the JEA and PMU determining whether a viable export market exists for mini-sett yams which should address at a minimum the following:

*Jamaica's competitive advantage/disadvantage on the world market vis-a-vis other miniset yam-producing countries (Costa Rica, France)

*Packaging, post harvest-handling, and promotional (e.g. labeling) recommendations

*Accessing/cross-over potential to other niche markets and alternative marketing centers

*Substitute product comparisons

For the Financial Analysis Volunteer, draft a comprehensive report directed to the JEA and PMU which should provide a cost analysis of production based on market price inputs, post-harvest handling prices (treatment plants, packing plants), establishment of a time-line, and determination of other cost inputs (labor, etc.).

The reports should be completed prior to leaving Jamaica.

4) Present the findings at a seminar to be held before representatives of the JEA, AESP/PMU, IICA, RADA, JAMPRO, USAID, and yam exporters.

It will essential for the VOCA Volunteers to begin collecting data prior to departure to Jamaica on project.

The VOCA Volunteers should be briefed by both the VOCA Program Officer in Washington, DC prior to departure and the USAID Project Officer upon arrival. The VOCA Volunteers should also be debriefed in-country and in Washington, DC upon return to the USA.

Length of project is estimated at 3-4 weeks.

The VOCA Volunteers will be based out of Kingston at either the Courtleigh Hotel, or at a full-service apartment (located adjacent to the Courtleigh) subject to preference and/or availability. The Volunteers should expect to be spending the night in secondary cities/towns as their in-country schedule calls for. Accommodations will most likely be in hotels or guest houses in that case. All addresses are located on the contacts page (last page) of this scope of work.

COUNTRY DESCRIPTION (please refer to the Country Information Section of the Briefing Book for a more comprehensive treatment of the country)

History

Jamaica has a rich and varied history beginning even before the arrival of Columbus in 1494, when the country was occupied by the Arawak Indians. The Island was captured from the Spanish by the British in 1655 and remained under direct British rule until political independence was granted in 1962.

Jamaica has a Westminster style constitution, with a Governor-General as the representative of the British Crown, and a bicameral Parliament. There is a House of Representatives consisting of elected representatives appointed by the Prime Minister and the Leader of the Opposition. The government is headed by a Prime Minister, who is required to consult with the Governor-General and the Leader of the Opposition on certain matters.

There are two major political parties, the JLP (Jamaican Labor Party) and the PNP (People's National Party); which have historically alternated power. From 1980-89, the JLP held office. They pursued a laissez-faire free market policy through the urging of the IMF, World Bank, and USAID. Because of a special political relationship with the Reagan administration, Jamaica received a relatively large outpouring of US assistance in the first half of the decade. The economy was substantially deregulated, the currency was devalued, and many public enterprises

were divested in the process of adjustment, which has now been on-going for some 14 years.

The eighties saw the development of free-zone manufacturing, especially of garments for export to the USA, the gradual recovery of bauxite/alumina production, and the rapid growth of tourism from North America. In the process, the traditional international economic relations, particularly with the USA, were strengthened at the expense of regional relations, such as Caricom trade.

In 1989, the PNP, led by the Honorable P.J. Patterson became the new government, and has continued the policies of the 1980's. Exports have been strongly encouraged in all sectors, and deregulation of the economy continues.

The Island and its' People

Jamaica is 235 kilometers long, and 82 kilometers at the widest point for a total area of 11,000 square kilometers. It lies in the Western Caribbean about 970 kilometers south of Miami, and 970 kilometers north of Panama, making it centrally located on the on shipping routes going through the Canal.

The population of Jamaica was 2.4 million in 1991, with an average annual growth rate of 1.1% from 1980-1991. Approximately 45% of the people are under 19 years of age, and a little less than 8% being above the age of 65. Based on the census of 1982, at least 48% of the population is urban; in 1943, the census estimated the urban population at that time to be 15%.

In the 1980's, net emigration, mainly to the USA, Canada, and the UK has averaged about 17,500 per year. The Jamaican expat community in the USA and the UK of 500,000 in each country at present. Remittances from these immigrants constitute an important part of private capital inflows, and of consumer imports annually.

The vast majority of the population is of African descent, but there are well established Indian, Chinese, Arab, and European communities as well. Christianity in its various denominations, is the religion of the vast majority of the population.

There are two international airports on the Island, Norman Manley in Kingston, and Sangster, in Montego Bay. They can both handle 747 aircraft. There are twelve active ports, the largest and most modern being Kingston (the seventh largest natural port in the world), which handles 80% of the incoming trade. Four of the other ports handle largely agricultural trade.

Jamaica has one of the most developed roads systems in the region. With about 13,000 kilometers of road, Jamaica has an average of 1.2 kilometers of road per square kilometer. Road transport is the primary mode of domestic transport for both people and freight; very little domestic produce is carried by railroad (there is 325 kilometers of track on the Island).

Agriculture

The main agricultural based exports are sugar, bananas, and coffee. In the 1980's, there was a rapid growth of non-traditional exports, targeted largely at ethnic communities overseas. Some doubts about the future of sugar and bananas have been generated by the unification of the European market which threatens traditional preferential arrangements enjoyed by Jamaica in the UK market.

The social structure in agriculture is still based on the traditions forged from the colonial experience. Approximately 82% of farmers are small farmers operating on 5 or less acres of land. The more fertile plains remain enclosed in large farms, some of which are government-owned sugar estates, and more recently, high-tech farms producing winter vegetables for the North American market.

Domestic agriculture has always played a stabilizing role for the economy as a whole. It has performed well, even in periods of over-all economic decline. Domestic food crops are grown primarily by small farmers. In recent years these farmers have faced stiff competition from cheap imports of food and from the rejected produce of the large export projects, especially winter vegetables, dumped on the local market. In 1988, Hurricane Gilbert did severe damage to the sector, but it has recovered quickly.

Food production is the largest sub-sector of manufacturing, with some 19.1% of total manufactured output in 1990. If sugar is included, the figure rises to 22.1% of that same year. The vast majority of output, with the exception of sugar, is sold on the local market. Sugar is exported primarily to the UK, the EEC, and the USA; most other manufactured products are sold on the Caricom (Caribbean Community) market.

CANDIDATE PROFILE

The ideal candidate(s) will have the following qualifications:

For the Financial Analyst

- *Background in Financial Analysis in the vegetable/fruit production market
- *Minimum 15 years of experience in domestic US and international financial sector
- *Minimum M.A. in Finance or Economics
- *Should have knowledge of Latin America & Caribbean regions

For the Marketing Study Volunteer:

- *Background in Marketing with strong aptitude in Promotion of vegetable/fruit sector
- *Ideally would have experience in product introduction into new market in North America from LAC region
- *Minimum 15 years experience in domestic/international marketing
- *Should have knowledge of Latin America & Caribbean regions

Contact Sheet

VOCA/Washington

Dennis J. Diligent
Program Officer
50 F. St., NW, Suite 1075
Washington, DC 20001
tel: 202-383-4961
fax: 202-783-7204

USAID/Jamaica

Mrs. Jennifer Rousseau
Project Officer
USAID/Jamaica
6B Oxford Rd.
Kingston 5
tel: 809-926-3645-9
fax: 809-929-3750 or 2

AESP/PMU Jamaica

Mr. A.C. Allen
Project Manager, AESP
Ministry of Agriculture
Hope Gardens
Kingston 6
tel: 809-927-1872
fax: 809-927-1872

Jamaican Exporters' Association

Mrs. Beverley Morgan
Director

13 Dominica Dr.
Kingston 5
tel: 809-929-3831 or 929-1292
fax: 809-929-3831

Inter-American Institute for Cooperation on Agriculture (IICA)

Mrs. Hyacinth Chin-Suc
Technical & Administrative Coordinator
11 Fairway Ave.
Kingston 5
tel: 809-927-6462 or 927-4337 or 978-0781

ACCOMMODATIONS

Courtleigh Hotel
31 Trafalgar Rd.
Kingston 10
tel: 809-926-8174

The Courtleigh has air-conditioned rooms, satellite television, full-service restaurant and bar, swimming pool, and is located in New Kingston, approximately a 5 minute drive to USAID, JEA, IICA, and 10 minutes from the MOA. Rates are at US\$78 per night. There are a variety of restaurants, banks, shops, and supermarkets within walking distance.

If and when available, full-service apartments are located directly adjacent to the Courtleigh and would be rented through:

Mr. Owen Pitter
Allison, Pitter & Co.
1 Tremaine Rd.
Kingston 6
tel: 809-927-4724/5 or 927-9133

You will be advised prior to your departure where reservations have been made for you, with the knowledge that you may change accommodations to a comparable hotel once in-country if desired.

VARIOUS COMMENTS

You will be required to view a USAID security video upon arrival in Kingston. The video is approximately 10 minutes long and will be arranged upon arrival by Mrs.

Rousseau at the Mission. You will be briefed by Mrs. Rousseau at USAID offices the following morning after your arrival.

Arrangements will be made by the AESP/PMU to pick you up at the airport and provide you with ground transportation throughout your project. In the event that no one is at the airport to pick you up, please take a cab or courtesy bus to the hotel and contact any one of the people listed above of your arrival.

The rate of exchange is currently J\$31 to US\$1. Credit cards and travelers checks are widely accepted.

No shots or other immunizations are required for Jamaica. Water is potable throughout the Island. Valid passports are required for travel and a exit tax of J\$400 is levied at the airport prior to your departure.

Telecommunications are very good throughout the island for both domestic and international calls.

180/94
MGAYP/IICA
URUGUAY



Bd. 24001

**CARTA DE ENTENDIMIENTO CM8, EN EL CONTEXTO
DE COOPERACION CON EL MINISTERIO DE GANADERIA,
AGRICULTURA Y PESCA, PARA EL APOYO A LA MODERNIZACION
DEL SECTOR AGROPECUARIO**

El Ministerio de Ganadería, Agricultura y Pesca, en adelante MGAP, representado por el Ministro, Dr. Pedro Saravia y el Instituto Interamericano de Cooperación para la Agricultura, IICA, representado por su Director General, Ing. Carlos E. Aquino, quien delega la facultad de firmar este documento en el Representante del IICA en Uruguay, Ec. Arnaldo I. Veras, suscriben la presente Carta de Entendimiento sujeta a las condiciones y cláusulas siguientes:

- Que el Ministerio ha manifestado al IICA su voluntad para que el IICA, en el contexto del "Convenio Marco de Cooperación para la Modernización del Sector Agropecuario", apoye a la Dirección General de Servicios Ganaderos, Proyecto "Sanidad Animal" MGAP-BID y en otras actividades para el fortalecimiento de dicha Dirección.
- Que el MGAP, Dirección General de los Servicios Ganaderos deberá realizar la construcción de la Estación Cuarentenaria, en el Marco del Proyecto BID/Sanidad Animal, y realizar otras actividades de Fortalecimiento de dichos servicios.
- Que el Ministerio y el IICA consideran posibilidades de realizar acciones conjuntas de apoyo al fortalecimiento de la Dirección General de los Servicios Ganaderos.
- Que el Ministerio y el IICA, para desarrollar e instrumentar sus propósitos, podrán en el contexto de esta Carta de Entendimiento, convenir acciones de coyuntura y de apoyo administrativo y/u otros instrumentos, de acuerdo a cada caso, a la conveniencia de las partes institucionales convenidas.

CONVIENEN:

CLAUSULA PRIMERA: OBJETIVOS

- Brindar apoyo para flexibilizar la acción de la Unidad Ejecutora del BID/Sanidad Animal del MGAP con financiamiento del Banco Interamericano de Desarrollo, Préstamo 811/SF-UR.

INSTITUTO INTERAMERICANO DE COOPERACION PARA LA AGRICULTURA

OFICINA EN URUGUAY

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- Brindar otras actividades de cooperación técnica y/o administrativa que se acuerden entre las partes.

CLAUSULA SEGUNDA: RESPONSABILIDAD DE LAS PARTES

DEL IICA

- Administrar recursos del MGAP y/u otros organismos públicos o privados que aporten a la realización de proyectos, acciones de coyuntura y de apoyo administrativo que se formulen y/o ejecuten en el contexto de la presente Carta de Entendimiento, conforme a las normas y procedimientos del IICA en la materia, reteniendo los Costos Administrativos y Técnicos Indirectos (CATI's) en consonancia con las normas del Instituto.
- Apoyar técnicamente, cuando sea debidamente concertado entre las partes, a los diferentes instrumentos que se ejecuten en el contexto de esta Carta de Entendimiento.
- Asumir responsabilidades técnicas sobre los resultados de las acciones, según se trate de proyectos o acciones de coyuntura.

DEL MGAP

- Responsabilizarse por los resultados de los trabajos que se ejecuten al amparo de esta Carta de Entendimiento cuando el instrumento de cooperación se caracterice como de exclusivo apoyo administrativo.
- Articular la cooperación de otras unidades especializadas del MGAP.
- Designar la Unidad Operaciones de enlace con el IICA, para el desempeño de las responsabilidades recíprocas que se generen por esta Carta de Entendimiento.

CLAUSULA TERCERA: APOORTE DE LAS PARTES

DEL IICA

- La gestión financiera de los recursos que se canalicen a través de esta Carta de Entendimiento.
- Apoyar técnicamente acciones que sean acordadas, entre las partes, de acuerdo a las posibilidades presupuestarias de la Oficina de Uruguay.

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DEL MGAP

- Nombrar profesionales de contraparte de las Oficinas especializadas, especialmente de la Dirección General de Servicios Ganaderos - Proyecto "Sanidad Animal MGAP-BID, en consonancia con los instrumentos de cooperación que se apruebe entre las partes.
- Aportar recursos de otras instituciones nacionales y/o internacionales que tengan interés en el trabajo conjunto con el MGAP al amparo de esta Carta de Entendimiento.
- Aportar recursos financieros en el presente ejercicio, por un monto mínimo de US\$ 40.000.- (cuarenta mil dólares) para una acción de apoyo administrativo orientada a la contratación de consultores, que apoyarán la Unidad Ejecutora del Proyecto MGAP-BID-Sanidad Animal.

CLAUSULA CUARTA: RESPONSABILIDAD DE LAS PARTES EN LA EJECUCION

DEL IICA

- Llevar la contabilidad de los recursos que ingresen en el contexto de esta Carta de Entendimiento en cuenta específica, rindiendo informes financieros de los ingresos y gastos por fuente de financiamiento.
- Ejercer el seguimiento, a través del Representante a la persona que él designe, cuando el instrumento de cooperación técnica asigne responsabilidad al IICA por el resultado de los trabajos (Proyectos y/o Acciones de Coyuntura), así como si se concerta responsabilidad compartida entre el IICA y el MGAP y/u otras instituciones.
- Responsabilizarse, en los casos de Proyectos y Acciones de Coyuntura, por la revisión final de los trabajos y/o documentos que se produzcan.
- Si eventualmente se adquiere con recursos del MGAP u otra entidad pública o privada algún equipo u otro tipo de bien material, por intermedio de este instrumento jurídico, el IICA se compromete a transferirlo, al MGAP u otra institución aportadora de fondos, de acuerdo entre las partes y de acuerdo a las normas vigentes.

INSTITUTO INTERAMERICANO DE COOPERACION PARA LA AGRICULTURA

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DEL MGAP

- Participar con el IICA en la programación, coordinación y seguimiento cuando las acciones que se ejecuten al amparo de esta Carta de Entendimiento, se ejecuten bajo la responsabilidad técnica del IICA y/o en forma compartida, mediante acuerdo entre las partes.
- Nombrar el enlace del MGAP, con el Representante del IICA.

CLAUSULA QUINTA: COORDINACION

El enlace nombrado por el MGAP y el Representante del IICA serán responsables por la coordinación y supervisión de las acciones que se deriven de esta Carta de Entendimiento, quienes actuarán en frecuente consulta con el Ministro de Agricultura.

CLAUSULA SEXTA: RESPONSABILIDAD EJECUTIVA

- Corresponde al IICA contratar consultores y otorgar becas de acuerdo a sus normas y procedimientos.
- Con la periodicidad que se convenga, el IICA presentará un informe de progreso de la ejecución financiera de los recursos que se aporten en el contexto de esta Carta de Entendimiento.
- Es de entera responsabilidad del MGAP y/o de otros organismos de contraparte, el ordenamiento de los gastos, las acciones y resultados técnicos que se realicen a través de "Acciones de apoyo Administrativo" en el contexto de esta Carta de Entendimiento.

CLAUSULA OCTAVA: VIGENCIA Y DURACION

La presente Carta de Entendimiento entrará en vigor a la fecha de su firma y tendrá validez hasta el 31 de agosto de 1995.

En fé de lo cual se firman dos ejemplares de igual tenor y validez, en la ciudad de Montevideo, a los .26... días del mes de julio de 1994.



Por el Ministerio de
Ganadería Agricultura
y Pesca

Dr. Pedro Saravia
Ministro

A large, stylized handwritten signature in black ink is written over a horizontal line. The signature is cursive and appears to read 'Pedro Saravia'.

Por el IICA

Ing. Agr. Carlos E. Aquino
Director General

A large, stylized handwritten signature in black ink is written over a horizontal line. The signature is cursive and appears to read 'Carlos E. Aquino'.

Por delegación:

Ec. Arnaldo I. Veras
Representante del IICA en
Uruguay

181/94
MAARA/IICA
BRASIL

Bol. 24231/94

Proc. nº 01600.013928/93-01
 Convênio nº 6-08-0005-00/90

QUARTO TERMO ADITIVO AO CONVÊNIO
 Nº 6-08-0005-00/90, QUE ENTRE SI
 CELEBRAM O MINISTÉRIO DA INTEGRAÇÃO
 REGIONAL POR MEIO DA SECRETARIA DE
 IRRIGAÇÃO E O INSTITUTO INTERAMERI-
 CANO DE COOPERAÇÃO PARA A AGRICUL-
 TURA - IICA, COM INTERVENIÊNCIA DO
 DEPARTAMENTO NACIONAL DE OBRAS
 CONTRA AS SECAS - DNOCS, PARA
 ALTERAR DISPOSIÇÕES ANTERIORMENTE
 PACTUADAS.

Aos 20 dias do mês de julho do ano de mil novecentos e noventa e quatro, o **MINISTÉRIO DA INTEGRAÇÃO REGIONAL**, CGC nº 37.115.359/0001-14, situado na Esplanada dos Ministérios, Bloco "E", nesta Capital, doravante denominado **MINISTÉRIO** representado neste ato pelo seu Ministro de Estado **ALUÍZIO ALVES**, residente e domiciliado nesta Capital, portador da Carteira de Identidade nº 118, da Câmara dos Deputados, CPF nº 005.896.084-87, nomeado pelo Decreto Presidencial de 03 de março de 1994, publicado às fls. 1290, do Diário Oficial da União, Seção II, de 04 subsequente, por meio da sua **SECRETARIA DE IRRIGAÇÃO**, doravante denominada **SIR**, situada na SGAN - Q.601 - Lote 01 - Ed. CODEVASF - 4º andar, nesta Capital, representada neste ato pelo seu Secretário, **ABELÍRIO VASCONCELOS DA ROCHA**, residente e domiciliado nesta Capital, portador da Carteira de Identidade nº 58.438, SSP/RN, CPF nº 003.921.464-87, nomeado pelo Decreto Presidencial de 08 de junho de 1994, publicado às fls. 3556, do Diário Oficial da União, Seção II, de 09 subsequente, e o **INSTITUTO INTERAMERICANO DE COOPERAÇÃO PARA A AGRICULTURA**, inscrito no CGC/MF sob nº 00.640.110/0001-18, doravante denominado **IICA**, situado na SHIS - QI 05 - Conj. 09 - Bloco D, nesta Capital, representado pelo seu Representante no Brasil **MARIO ARISTIDES INFANTE OLANO**, residente e domiciliado nesta capital, Carteira de Identidade nº 20.171, expedida pela Organização dos Estados Americanos, isento de CPF, conforme Decreto nº 361, de 10 de dezembro de 1991, publicado no Diário Oficial da União do dia 11 subsequente, com a interveniência do **DEPARTAMENTO NACIONAL DE OBRAS CONTRA AS SECAS**, doravante denominado **DNOCS**, inscrito no CGC/MF sob o nº 00.043.711/0001-43, situado na Av. Duque de Caxias, nº 1.700, Edifício Arrojado Lisboa, Fortaleza, Ceará, neste ato representado pelo seu Diretor Geral **HILDEBERTO SANTOS ARAÚJO**, residente e domiciliado em Fortaleza.

MIR
 CONSULTE

Ceará, portador da Carteira de Identidade nº 332.784 SSP/CE, CPF nº 044.023.327-53, resolvem celebrar o presente Termo Aditivo ao Convênio nº 6-08-0005-00/90, sujeitando-se os Convenientes às normas do Decreto-Lei nº 2.300, de 21 de novembro de 1986, bem como as do Decreto nº 93.872, de 23 de dezembro de 1986, a IN/SFN nº 003, de 27 de dezembro de 1990, e às da IN/STN nº 02, de 19 de abril de 1993, no que couber, mediante as cláusulas e condições seguintes:

CLÁUSULA ADITIVA PRIMEIRA - DO OBJETO

O presente Termo Aditivo tem por objeto alterar o disposto na Cláusula Sexta do Convênio nº 6-08-0005-00/90, entre os mesmos partícipes celebrado, para fins de alocação de recursos.

CLÁUSULA ADITIVA SEGUNDA - DOS RECURSOS FINANCEIROS


Para atender à continuação das ações de execução do Projeto objeto deste Termo, serão alocados pelo MIR R\$ 329.412,87 (trezentos e vinte e nove mil, quatrocentos e doze reais e oitenta e sete centavos), conforme instrução contida no processo nº 01600.013928/93-01.

SUBCLÁUSULA ÚNICA - DA CLASSIFICAÇÃO FUNCIONAL-PROGRAMÁTICA E ECONÔMICA DA DESPESA

Os recursos do MIR, no valor de R\$ 329.412,87 (trezentos e vinte e nove mil, quatrocentos e doze reais e oitenta e sete centavos), correrão à conta das dotações consignadas ao Projeto/Subprojeto 07.054.0077.1235.0003 - PROINE - Irrigação do Nordeste/Apoio Técnico-Operacional, natureza da despesa 3490.35 - Serviços de Consultoria, fonte 148 - BIRD/AE Nº 3170-BR, objeto da nota de empenho nº 94NE00281, de 08 de julho de 1994.

CLÁUSULA ADITIVA TERCEIRA - DA LIBERAÇÃO E MOVIMENTAÇÃO DOS RECURSOS

Os recursos do MIR serão liberados obedecendo ao Cronograma de Desembolso, constante do Plano de Trabalho, parte integrante deste Termo.

SUBCLÁUSULA ÚNICA - Os recursos referidos no inciso anterior serão mantidos na conta nº 2486027349, do Banco American Security Bank, Agência Washington - USA. 



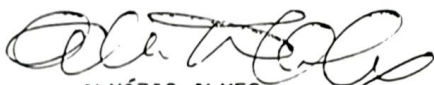
CLÁUSULA ADITIVA QUARTA - DA RATIFICAÇÃO

Ficam ratificadas todas as Cláusulas e condições não expressamente alteradas neste Termo.


CLÁUSULA ADITIVA QUINTA - DA PUBLICAÇÃO

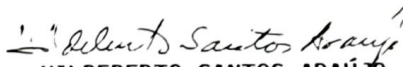
O presente Termo Aditivo será publicado, em extrato, no Diário Oficial da União, devendo ocorrer no prazo de 20 (vinte) dias.

E, para firmeza e validade do que foi avençado, firmam este instrumento em duas vias, de igual teor e forma na presença das testemunhas que também o subscrevem.


ALUÍZIO ALVES
Ministro de Estado da Integração
Regional


ABELÁRIO VASCONCELOS DA ROCHA
Secretário de Irrigação


MÁRIO ARISTIDES INFANTE OLANO
Representante do IICA no Brasil


HILDEBERTO SANTOS ARAÚJO
Diretor Geral do DNOCS

TESTEMUNHAS: _____



ESPECIE: 6º Termo Aditivo ao Convênio nº 170/89 - NOME DOS PARTICIPANTES: Ministério da Integração Regional, por meio da Secretaria de Irrigação e Companhia Energética de Brasília/CEB, com a intervenção do Distrito Federal, por meio da sua Secretaria de Intervenção Distrito Federal, por meio da sua Secretaria de Agricultura. RESUMO DO OBJETO: alterar o disposto nas Cláusulas Quarta, Quinta e Sexta do convênio, entre os mesmos participantes celebrados, para fins de suplementação de recursos. CREDITO PELO QUAL CONCORRERÁ A DESPESA: Programa de trabalho: 07.054.0077.1234.0001 Natureza da Despesa: 4560.42; NÚMERO, DATA E VALOR DA NOTA DE EMPENHO: 94NE000099 de 10/05/94, CR\$ 306.000.000,00 (trezentos e seis mil e seiscentos reais). DATA DE ASSINATURA: 30/06/94. ASSINAM: pelo Ministério da Integração Regional, Aluizio Alves, Ministro de Estado; pela Secretaria de Irrigação, Fernando Rodrigues Ferreira Leite, pela Companhia Energética de Brasília de Sales Dias, Diretor de Distribuição e Presidente, Domingos Lamola de Sales Dias, Diretor de Distribuição e pela Secretaria de Agricultura, Francisco Monteiro Guimarães, Secretário.

ESPECIE: 10º Termo Aditivo ao Convênio nº 171/89 - NOME DOS PARTICIPANTES: Ministério da Integração Regional, por meio da Secretaria de Irrigação e Central Elétrica de Goiás S.A. CELG, com a intervenção do Estado de Goiás, por meio da sua Secretaria de Agricultura e Abastecimento. RESUMO DO OBJETO: modificar o disposto nas Cláusulas Quarta, Quinta e Sexta do convênio, entre os mesmos participantes celebrados, para fins de suplementação de recursos. CREDITO PELO QUAL CONCORRERÁ A DESPESA: Programa de trabalho: 07.054.0077.1234.0001 Natureza da Despesa: 4560.42; NÚMERO, DATA E VALOR DA NOTA DE EMPENHO: 94NE000064 de 13/04/94, CR\$ 500.000.000,00 (quinhentos mil e seiscentos reais). DATA DE ASSINATURA: 30/06/94. ASSINAM: pelo Ministério da Integração Regional, Aluizio Alves, Ministro de Estado; pela Secretaria de Irrigação, Abelirio Vasconcelos da Rocha, pela Central Elétrica de Goiás, José Francisco das Neves, Presidente, Francisco de Freitas Castro, Diretor Econômico Financeiro e pela Secretaria de Estado de Agricultura e Abastecimento, Orcino Gonçalves da Silva Junior, Secretário.

ESPECIE: 9º Termo Aditivo ao Convênio nº 222/89 - NOME DOS PARTICIPANTES: Ministério da Integração Regional, por meio da Secretaria de Irrigação e Companhia Energética de Minas Gerais/CEMIG, com a intervenção do Estado de Minas Gerais, por meio da sua Secretaria de Agricultura e Pecuária e Abastecimento. RESUMO DO OBJETO: alterar o disposto nas Cláusulas Quarta, Quinta e Sexta do convênio, entre os mesmos participantes celebrados, para fins de suplementação de recursos. CREDITO PELO QUAL CONCORRERÁ A DESPESA: Programa de trabalho: 07.054.0077.1234.0001 Natureza da Despesa: 4560.42; NÚMERO, DATA E VALOR DA NOTA DE EMPENHO: 94NE000577 de 14/04/94, CR\$ 600.000.000,00 (seiscentos e cinquenta mil e seiscentos reais). DATA DE ASSINATURA: 30/06/94. ASSINAM: pelo Ministério da Integração Regional, Aluizio Alves, Ministro de Estado; pela Secretaria de Irrigação, Abelirio Vasconcelos da Rocha, Secretário de Irrigação; pela Companhia Energética de Minas Gerais, Carlos Eloy Carvalho Guimarães, Presidente, Francisco Luiz Moreira Penna, Diretor de Finanças; e pela Secretaria de Estado da Agricultura Pecuária e Abastecimento, Munro Monteiro Casassanta, Secretário.

ESPECIE: 4º Termo Aditivo ao Convênio nº 6-08-0005-00/90 - VALOR: R\$ 329.412,87. NOME DOS PARTICIPANTES: Ministério da Integração Regional por meio da Secretaria de Irrigação e Instituto Internacional de Cooperação para a Agricultura - IICA, com a intervenção do Departamento Nacional de Obras Contra as Secas - DNOCS. RESUMO DO OBJETO: Alterar o disposto na Cláusula Sexta do Convênio nº 6-08-0005-00/90, entre os mesmos participantes celebrados, para fins de suplementação de recursos. CREDITO PELO QUAL CONCORRERÁ A DESPESA: Programa de trabalho: 07.054.0077.1235.0003 - ELEMENTO DE DESPESA: 34.90.35. NÚMERO, DATA E VALOR DA NOTA DE EMPENHO: 94NE00281, de 08/07/94 - FONTE 148 - R\$ 329.412,87 (trezentos e vinte e nove mil, quatrocentos e doze reais e oitenta centavos) DATA DA ASSINATURA: 20/07/94. ASSINAM: pelo Ministério da Integração Regional, Aluizio Alves, Ministro de Estado; pela Secretaria de Irrigação, Abelirio Vasconcelos da Rocha; pelo IICA, Mário Aristides Infante Orlano, Representante do IICA no Brasil e pelo DNOCS, Hildeberto Santos Araújo, Diretor Geral.

(Of. nº 567/94)

Superintendência do Desenvolvimento da Amazônia

EXTRATOS DE CONVÊNIO

ESPECIE: Convênio nº 009/94 - SUDAM, celebrado entre a Superintendência do Desenvolvimento da Amazônia e o Instituto Nacional de Pesquisa da Amazônia - INPA. RESUMO DO OBJETO: Aporte de Recursos Financeiros para execução do Projeto "Infra-Estruturas de Apoio à Difusão e Aplicação de Conhecimentos Técnicos e Científicos gerados pelo INPA nos setores Madeireiro, Agroflorestal e Pesqueiro". CLASSIFICAÇÃO FUNCIONAL PROGRAMÁTICA DO CREDITO PELO QUAL CONCORRERÁ A DESPESA: Orçamento da SUDAM, Exercício de 1994. Projeto/Atividade 43202/070100035 - 1728 - Desenvolvimento Científico - Tecnológico. Sub/Projeto 0005 - Capacitação de Controle de Excelência no Estado do Amazonas. Fonte 115 - Contribuição para Programas Especiais (PIM/PROTERRA). Elemento de Despesa 459052.00 - Equipamentos e Material Permanente. VALOR DO CONVÊNIO: R\$ 10.000,00 (Dez Mil Reais). PERCENTAGEM DA CONTRAPARTIDA: 10% (dez por cento, correspondente à R\$ 909,09 (Novecentos e Nove Reais e Nove Centavos). VALOR A SER REPARADO NO EXERCÍCIO: R\$ 9.090,90 (Nove Mil e Noventa Reais e Noventa Centavos). NOTA DE EMPENHO: Nota de Crédito emitida diretamente ao INPA. PRAZO DE VIGÊNCIA: 12 (doze) meses, a partir da publicação deste extrato no D.O.U. DATA DA ASSINATURA: Belém, 12 de julho de 1994. SIGNATÁRIOS: Frederico Alberto de Andrade, Superintendente da SUDAM e José Belizias Lourenço, Diretor do INPA. Nº DO PROCESSO: CUP - 06300/000930/94.

ESPECIE: Convênio nº 008/94-SUDAM de Cooperação Técnico-Científica celebrado entre a Superintendência do Desenvolvimento da Amazônia e o Ministério de Minas e Energia - MME. RESUMO DO OBJETO: Promoção de um intercâmbio técnico-científico nas áreas de energia e desenvolvimento social, visando o atendimento das demandas básicas de comunidades carentes, localizadas nos Estados situados na área de atuação da SUDAM. CLASSIFICAÇÃO FUNCIONAL PROGRAMÁTICA DO CREDITO PELO QUAL CONCORRERÁ A DESPESA: Não existe aporte de recursos. PRAZO DE VIGÊNCIA: 24 (vinte e quatro) meses, a contar da data da publicação do extrato no D.O.U. DATA DA ASSINATURA: Belém, 11 de julho de 1994. SIGNATÁRIOS: Frederico Alberto de Andrade - Superintendente da SUDAM e Peter Greiner - Secretário de Energia - Ministério de Minas e Energia. Nº DO PROCESSO: CUP - 06300/00377/94.

(Of. nº 84/94)

Superintendência da Zona Franca de Manaus

EXTRATO DE TERMO ADITIVO

ESPECIE: Termo Aditivo nº 004/94 celebrado em 31.03.94 ao Contrato nº 0003/94. PARTES - SUPERINTENDÊNCIA DA ZONA FRANCA DE MANAUS, CCG nº 0407029/0001-43 e a empresa ENCOCEL - EMPRESA DE CONSTRUÇÃO CIVIL E ELÉTRICA LTDA., CCG nº 84124361/0001-30. FORAM SIGNATÁRIOS deste Termo, pela SUFRAMA, seu Superintendente, Manuel Silva Rodrigues, Carteira de Identidade nº 5.660.649/SSP-SP, C.P.F. nº 883.319.462-04, pela CONTRATADA, seu Sócio-Gerente Alexandre Aued Neto, Carteira de Identidade nº 6020345-SP, C.P.F. nº 001.260.522-68. OBJETO - Na forma do previsto na Cláusula Segunda do Contrato nº 003/92, firmado em 10.04.92, fica prorrogado por mais doze (12) meses o prazo de vigência do citado Contrato, contada essa prorrogação do dia 10 de abril de 1994 a 10 de abril de 1995, obrigando-se a contratada a executar serviços complementares aos consignados na Cláusula Primeira do Contrato nº 003/92. VALOR - Pelos serviços complementares aqui pactuados, tendo em conta o realinhamento de preços unitários e à adequação das mandamentos da Medida Provisória 434, de 27.02.94, ficando desde já estabelecido, a conversão à Unidade Real de Valor (URV) onde a SUFRAMA pagará à Contratada o valor global de CR\$ 911.883.553,60 (Novecentos e onze mil e oitocentos e oitenta e três reais e sessenta e nove mil e quatrocentos e quatorze virgula dezessis unidades reais de valor) a serem pagos, sotrendo apenas a variação do retrofocado índice, pela forma prevista na Cláusula Terceira e suas Subcláusulas do Contrato objeto do presente Termo de Aditamento. COBERTURA LEGAL DA DESPESA - Correrá à conta dos seguintes desques orçamentários da SUFRAMA: 07.039.0346.1173.0001 - Distrito Industrial de Manaus - Obras de Infra-estrutura do Distrito Industrial de Manaus - Natureza da Despesa 4590.51 - Obras e Instalações. NÚMERO DO EMPENHO - Nota de Empenho nº 0227, dada de 11.02.94. No exercício seguinte, correrá à conta de dotação orçamentária própria da SUFRAMA. Manaus, 14 de julho de 1994.

(Of. nº 37/94)

Companhia de Desenvolvimento do Vale do São Francisco

RETIFICAÇÃO

Retifica-se a publicação feita no D.O.U. de 14/07/94, fls. 13221, Seção 3, no extrato do 1º Termo Aditivo ao Contrato nº 0.00.92.0049/00, onde se lê: VALOR: CR\$ 2.071.238.605,02 leia-se: VALOR: CR\$ 2.582.499.824,07 (dois bilhões, quinhentos e oitenta e dois mil e quatrocentos e nove mil, oitocentos e vinte e quatro reais e sete e nove centavos). Ratificadas as demais cláusulas.

(Nº 25.478 - 20-7-94 - R\$ 33,60)

6ª Superintendência Regional

EXTRATO DE CONTRATO

ESPECIE: Contrato nº 6009401200, firmado entre a Companhia de Desenvolvimento do Vale do São Francisco - CODEVASF e a Firma Flisio Cavalcanti e Cia. LTDA. OBJETO: Execução dos serviços de escavação e rebalçamento de drenos superficiais. Perímetro Irrigado de Manicoba, no município de Juazeiro, Estado da Bahia.

RESULTADO DE JULGAMENTO EDITAL Nº 9/94

À 6ª Superintendência Regional da CODEVASF, comunica aos interessados que os serviços de que trata o Edital nº 89/94 - Tomada de Preços, que tem por objeto a construção de bueiros de concreto e estruturas de controle, no canal CP-03 do Perímetro Irrigado de Manicoba-SA, foram adjudicados no valor global de 156.946 URV's, à empresa Construir - Incorporação Ltda.

AURILIO DOS SANTOS SOUSA
Superintendente Regional

(Ofs. nºs 137 e 138/94)

MINISTÉRIO DO MEIO AMBIENTE E DA AMAZÔNIA LEGAL

Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis

EXTRATOS DE TERMOS DE PESCISA DE CONTRATOS

ESPECIE: Termo de Rescisão de Contrato de Prestação de Serviços nº 071/92, celebrado entre o Instituto Brasileiro do Meio Ambiente e dos Recursos

Atividade e Data: Superintendente Administrativo - Dr. Claudio Meil-
relles Romero - 14.07.94.
Ratificação e Data: Presidente Lourival Carmo Monaco - 20.07.94.
(Of. nº 1.218/94)

MINISTERIO DA INTEGRAÇÃO REGIONAL
Gabinete do Ministro
EXTRATOS DE CONVÊNIOS

ESPÉCIE: Convênio nº 088/94-MIP - Processo: 06000.003042/94-32. Valor:
R\$ 30.035,33 . NOME DOS PARTICIPANTES E CGC: Ministério da Integração
Regional - CGC: 37.115.359/0001-14, e a Prefeitura Municipal de
Cabixi/RO - CGC: 22.853.359/0001-20. RESUMO DO OBJETO: Recuperação de
Estradas Vicinais. CRÉDITO PELO QUAL CORRERÁ A DESPESA: PROGRAMA DE
TRABALHO: 43001.07.040.0031.1142.0440. ELEMENTO DE DESPESA: 45.40.42.
Fonte 100. NÚMERO, DATA E VALOR DA NOTA DE EMPENHO:
94NE01677 de 07/07/94, R\$ 27.304,85 (vinte e sete mil, trezentos e
quatro reais e oitenta e cinco centavos). VALOR A SER TRANSFERIDO NO
EXERCÍCIO EM CURSO: R\$ 27.304,85. VALOR DA CONTRAPARTIDA: NO
2.730,48 . PERÍODO DE VIGÊNCIA: 26/07/94 até 31/12/94. DATA DA
ASSINATURA: 26/07/94. ASSINAM: pelo Ministério da Integração Regional,
Aluizio Alves, CPF: 005.896.084-87, Ministro de Estado, Pela Prefeitura
Municipal de Cabixi, Francisco Mendes de Sá B. Coutinho, CPF:
214.728.2344-00, Prefeito.

ESPÉCIE: Convênio nº 089/94-MIR - Processo: 06000.002662/94-81. Valor:
R\$ 43.636,35 . NOME DOS PARTICIPANTES E CGC: Ministério da Integração
Regional - CGC: 37.115.359/0001-14, e a Prefeitura Municipal de
Torrinha/SP - CGC: 46.364.220/0001-03. RESUMO DO OBJETO: Construção de
Estradas Vicinais. CRÉDITO PELO QUAL CORRERÁ A DESPESA: PROGRAMA DE
TRABALHO: 43001.07.040.0183.3339.0003. - 430001.07.040.0183.1714.1926.
ELEMENTO DE DESPESA: 45.40.42. Fonte 100. NÚMERO, DATA E VALOR DA
NOTA DE EMPENHO: 94NE01281 e 94NE01282 de 17/06/94, R\$ 29.993,45
(vinte e nove mil, novecentos e noventa e três reais e quarenta e
cinco centavos) e R\$ 6.370,18 (seis mil, trezentos e setenta reais e
dezoito centavos). VALOR A SER TRANSFERIDO NO EXERCÍCIO EM CURSO:
R\$ 16.363,63. VALOR DA CONTRAPARTIDA: R\$ 7.272,72. PERÍODO DE VIGÊNCIA:
26/07/94 até 31/12/94. DATA DA ASSINATURA: 26/07/94. ASSINAM: pelo
Ministério da Integração Regional, Aluizio Alves, CPF: 005.896.084-87,
Ministro de Estado, Pela Prefeitura Municipal de Torrinha, Ivanildo
Ferreira do Nascimento, CPF: 513.343.728-53, Prefeito.

ESPÉCIE: Convênio nº 090/94-MIR - Processo: 06000.002425/94-66. Valor:
R\$ 112.032,50 . NOME DOS PARTICIPANTES E CGC: Ministério da
Integração Regional - CGC: 37.115.359/0001-14, e a Prefeitura Municipal de
Barra das Garças/MT - CGC: 03.439.231/0001-50. RESUMO DO OBJETO:
Construção de Galerias de águas pluviais. CRÉDITO PELO QUAL CORRERÁ A
DESPESA: PROGRAMA DE TRABALHO: 43001.07.040.0183.1714.1925. - ELEMENTO
DE DESPESA: 45.40.42. Fonte 100. NÚMERO, DATA E VALOR DA NOTA
DE EMPENHO: 94NE01624 de 30/06/94, R\$ 25.667,63 (vinte e cinco
mil, seiscentos e sessenta e sete reais e sessenta e três centavos) e
94NE01903, de 13/07/94, R\$ 26.290,09 (vinte e seis mil, duzentos e
noventa reais e nove centavos). CRÉDITO PELO QUAL CORRERÁ A DESPESA:
PROGRAMA DE TRABALHO: 43001.07.040.0183.1714.1489. - ELEMENTO DE
DESPESA: 45.40.42. Fonte 100. NÚMERO, DATA E VALOR DA NOTA DE
EMPENHO: 94NE01626, de 30/07/94 R\$ 10.696,00 (dez mil, seiscentos e
noventa e seis reais e seis centavos) e 94NE01904, de 13/07/94, R\$ 38.175,53
(trinta e oito mil, cento e setenta e cinco reais e cinquenta e três
centavos). VALOR A SER TRANSFERIDO NO EXERCÍCIO EM CURSO: R\$
10.629,25. VALOR DA CONTRAPARTIDA: R\$ 11.203,25. PERÍODO DE VIGÊNCIA:
26/07/94 até 31/12/94. DATA DA ASSINATURA: 26/07/94. ASSINAM: pelo
Ministério da Integração Regional, Aluizio Alves, CPF: 005.896.084-87,
Ministro de Estado, Pela Prefeitura Municipal de Barra do Garça, Wilmar
Farias de Farias, CPF: 089.250.541-91, Prefeito.

ESPÉCIE: Convênio nº 091/94-MIR - Processo: 06000.003555/94-15. Valor:
R\$ 88.524,27 . NOME DOS PARTICIPANTES E CGC: Ministério da Integração
Regional - CGC: 37.115.359/0001-14, e a Prefeitura Municipal de João
Câmara - RN - CGC: 08.309.536/0001-03. RESUMO DO OBJETO: Construção de
Unidades Sanitárias nos Distritos de Queimadas, Amarelão e Assunção.
CRÉDITO PELO QUAL CORRERÁ A DESPESA: PROGRAMA DE TRABALHO: 43001.07.040.0031.1142.0151 - ELEMENTO DE DESPESA: 45.40.42 - Fonte
100. NÚMERO, DATA E VALOR DAS NOTAS DE EMPENHO: 94NE01973
de 15/07/94, R\$ 18.487,92 (dezoito mil, quatrocentos e oitenta e sete
reais e noventa e dois centavos) e 94NE02090, de 25/07/94, R\$
10.909,10 (dez mil, novecentos e nove reais e dez centavos). CRÉDITO
PELO QUAL CORRERÁ A DESPESA: PROGRAMA DE TRABALHO: 43001.07.040.0183.1714.1485 - ELEMENTO DE DESPESA: 45.40.42. Fonte
100. NÚMERO, DATA E VALOR DA NOTA DE EMPENHO: 94NE02089, de
25/07/94 R\$ 29.090,90 (vinte e nove mil, noventa reais e noventa
centavos) e CRÉDITO PELO QUAL CORRERÁ A DESPESA: PROGRAMA DE TRABALHO:
43001.07.058.0323.3356.0043 - ELEMENTO DE DESPESA: 45.40.42. Fonte 100.
NÚMERO, DATA E VALOR DA NOTA DE EMPENHO: 94NE01972, de 15/07/94, R\$
8.055,62 (oito mil, cinquenta e cinco reais e sessenta e dois
centavos). VALOR A SER TRANSFERIDO NO EXERCÍCIO EM CURSO: R\$
80.000,00. VALOR DA CONTRAPARTIDA: R\$ 8.524,27. PERÍODO DE VIGÊNCIA:
26/07/94 até 31/12/94. DATA DA ASSINATURA: 26/07/94. ASSINAM: pelo
Ministério da Integração Regional, Aluizio Alves, CPF: 005.896.084-87,
Ministro de Estado, Pela Prefeitura Municipal de João Câmara - RN, José
Ribeiro Leite, CPF: 106.960.404-68, Prefeito.

ESPÉCIE: 4º Termo Aditivo ao Convênio nº 194/93 - NOME
DOS PARTICIPANTES: Ministério da Integração Regional, o
Superintendente do Desenvolvimento do Nordeste - SUDENE e o Governo do
Estado de Sergipe. RESUMO DO OBJETO: Alterar a Cláusula Décima Terceira
- Vigência, do Convênio Tripartite MIR-SUDENE-ESTADO, que passa a ter
seguinte redação: Este Convênio vigorará até 30/06/95, condicionada sua
eficácia à publicação dos seus termos. DATA DA ASSINATURA: 30/06/94.
ASSINAM: pelo Ministério da Integração Regional, Aluizio Alves,
Ministro de Estado; Pela Superintendência do Desenvolvimento do
Nordeste - SUDENE, Nilton Moreira Rodrigues, Superintendente e pelo
Governo do Estado de Sergipe, João Alves Filho, Governador.

RATIFICAÇÃO

No 4º Termo Aditivo ao Convênio nº 195/93-MIR, publicado no Diário

Oficial da União de 25/07/94, seção 3 página 13928, onde se lê: DATA DA
ASSINATURA: 21/07/94; leia-se: DATA DA ASSINATURA: 30/06/94.

ESPÉCIE: No 4º Termo Aditivo ao Convênio nº 6-08-005-00/90, publicado
no D.O.U. de 21/07/94, pag. 13674-Seção III, onde se lê: NÚMERO, DATA E
VALOR DA NOTA DE EMPENHO: R\$ 329.412,87 (trezentos e vinte e nove mil
quatrocentos e oitenta centavos). Leia-se NÚMERO, DATA E VALOR DA NOTA
DE EMPENHO: R\$ 329.412,87 (trezentos e vinte e nove mil quatrocentos
e doze reais e oitenta e sete centavos) e onde se lê: ASSINAM: pelo
DNOCS, Hildeberto Santos Araújo, Diretor Geral, leia-se ASSINAM: pelo
DNOCS, Hildeberto Santos Araújo, Diretor Geral.

(Of. nºs 577 e 897/94)

Departamento Nacional de Obras Contra as Secas

4ª Diretoria Regional

EDITAL DE LEILÃO Nº 1/94 - 3ª CRA

O Departamento Nacional de Obras Contra as Secas - DNOCS,
comunica que fará no dia 13 de agosto de 1994, às 9:00 horas, no Perí-
metro Irrigado de Jacurici, Município de Itiúba-BA., o leilão nº 01/94 -
3ª CRA tendo como objetivo a venda de: Camioneta Chevrolet A-10, a al-
cool, ano 83, chassi 9BG5254BPCC003864, Jeep Ford a gasolina, ano 80,
chassi LA1BYL65105, Mercedes Benz, diesel, mod. 608-D, ano 78, chassi
N930830212381843, Trator Agrícola MF-65, Máquinas para oficina mecânica,
Máquinas de escrever e calcular, Móveis para Escritório, Balanças, Ven-
tiladores, Geladeiras, Materiais para Laboratório, Máquinas Xerox, Teodo-
litos, Peças para carros Ford, Chevrolet e Mercedes Benz, e outros. Lei-
leiro Oficial: ORLANDO BATISTA PEREIRA - Endereço - Rua Senador Costa
Pinto, 851 Salvador - BA. Fone: 071 - 321-1715.

Informações e fornecimento do Edital com as Diretórias Re-
gionais do DNOCS em Salvador-BA., Fortaleza-CE., Recife-PE com os DE-
PESAS em Aracaju-SE., João Pessoa-PB., no local do Leilão ou ainda com a 3ª
CRA na Sede da Av. Sussuarana, 485 - CAB - Salvador-BA. Fone: 071-371-4143
e 071-371-4333.

HUDSON PEREIRA MENDES
Presidente 3ª CRA

(Of. nº 71/94)
(DIAS: 26, 27 e 28/7/94)

Superintendência do Desenvolvimento do Nordeste

EXTRATOS DE TERMOS ADITIVOS

ESPÉCIE: 1º Termo Aditivo do Contrato DAD nº 004/93, firmado entre a
SUDENE e JATO MANUTENÇÃO E CONSERVAÇÃO DE AERONAVES LTDA; OBJETO: Conter-
tir os preços unitários dos serviços por preços em Real; DATA DA ASSINA-
TURA: Recife, 27 de Julho de 1994; Pela SUDENE: JOSÉ LUIZ DE OLIVEIRA
AZEVEDO JUNIOR - Diretor de Administração geral; Pela CONTRATADA: ARTUR
CESAR PINHEIRO SILVA - representante da Contratada.

Processo 28110.CO.0043/93-8

1) ESPÉCIE: Primeiro Termo Aditivo ao Convênio DPG-084/93. 2) NOME E
CPF/CGC DOS PARTICIPANTES E DOS SIGNATÁRIOS: Superintendência do Desenv-
volvimento do Nordeste-CGC 10.890.804/0001-67, NILTON MOREIRA RODRI-
GUES-CPF 001.538.182-04, Superintendente e o Governo do Estado da Para-
íba-CGC 08.761.124/0001-00, CÍCERO LUCENA FILHO-CPF 142.488.324-55, Go-
vernador. 3) RESUMO DO OBJETO: Prorrogar a vigência do convênio DPG -
084/93 para 30.09.94. 4) RATIFICAÇÃO: São ratificadas todas as cláusulas
e condições do convênio ora aditado, não contrariadas pelo presente
termo. 5) VIGÊNCIA: Da data de sua assinatura até 30.09.94, condi-
cionada sua eficácia à publicação de seus termos, em resumo, no Diário
da União. 6) DATA DA ASSINATURA: 21.07.94.

Processo 28110.CO.0044/93-1

1) ESPÉCIE: Primeiro Termo Aditivo ao Convênio DPG-085/93. 2) NOME E
CPF/CGC DOS PARTICIPANTES E DOS SIGNATÁRIOS: Superintendência do Desenv-
volvimento do Nordeste-CGC 10.890.804/0001-67, NILTON MOREIRA RODRI-
GUES-CPF 001.538.182-04, Superintendente e o Governo do Estado da Para-
íba-CGC 08.761.124/0001-00, CÍCERO LUCENA FILHO-CPF 142.488.324-55, Go-
vernador. 3) RESUMO DO OBJETO: Prorrogar a vigência do convênio DPG-
085/93 até 30.09.94. 4) RATIFICAÇÃO: São ratificadas todas as cláusulas
e condições do convênio ora aditado, não contrariadas pelo presente
termo. 5) VIGÊNCIA: Da data de sua assinatura até 30.09.94, condi-
cionada sua eficácia à publicação de seus termos em resumo no Diário O-
ficial da União. 6) DATA DA ASSINATURA: 21.07.94.

Processo 28110.CO.0058/93-0

1) ESPÉCIE: Primeiro Termo Aditivo ao Convênio DPG-103/93. 2) NOME E
CPF/CGC DOS PARTICIPANTES E DOS SIGNATÁRIOS: Superintendência do Desenv-
volvimento do Nordeste-CGC 10.890.804/0001-67, NILTON MOREIRA RODRI-
GUES-CPF 001.538.182-04, Superintendente e o Governo do Rio Grande do
Norte-CGC 24.519.654/0001-94, VIVALDO SILVINO DA COSTA-CPF 004.062.444-
72, Governador. 3) RESUMO DO OBJETO: Prorrogar a vigência do convênio
DPG-103/93 para 30.09.94. 4) RATIFICAÇÃO: São ratificadas todas as clá-
usulas e condições do convênio ora aditado, não contrariadas pelo pre-
sente termo. 5) VIGÊNCIA: Da data de sua assinatura até 30.09.94, con-
dicionada sua eficácia à publicação de seus termos, em resumo, no Diá-
rio Oficial da União. 6) DATA DA ASSINATURA: 21.07.94.

AVISO DE LICITAÇÃO
CONCORRÊNCIA Nº 2/94

OBJETO: O fornecimento de Ticket's restaurante e Ticket's alimentação, que
permitam a aquisição, pelos servidores da SUDENE, de refeições, em res-
taurantes ou estabelecimento congêneres, ou de gêneros alimentícios em
estabelecimentos comerciais, localizados em todo território nacional; DA
TA/HORA/LOCAL DE RECEBIMENTO DAS PROPOSTAS: 29.08.94, às 09:00 horas, na
sala 406, 4º andar do Edifício SUDENE, Praça Ministro João Gonçalves de

182/94
FINAGRO/ICA
COLOMBIA

MEMORANDUM

Nº: SC/DO3-128

Date: 11 de agosto, 1994

A: Ver distribución

DE: Jaime Acosta, Director de Operaciones del Area Andina, Enc.

ASUNTO: Contrato de Capacitación FINAGRO-IICA Colombia

Para el registro correspondiente adjunto copia del Contrato de Capacitación entre el Fondo para el Financiamiento del Sector Agropecuario (FINAGRO) y el IICA, firmado el pasado 29 de julio, que tiene como propósito organizar y adelantar un programa de seminarios sobre "la innovación y trabajo en equipo para la realización de las políticas agropecuarias y pesqueras", que se realizará mediante la celebración de varios talleres y foros de formación de alta dirección, planeación y capacitación, en el período comprendido entre el 1° de agosto y el 31 de diciembre del presente año.

Atentamente.

DISTRIBUCION:

Fernando Suárez de Castro, Asesor Jurídico
Manuel Otero, Director de la DIPROE
Gordon Mair, Director de Finanzas

cc: DJoslyn
EMoscardi

JA/ghf


Registrar y archivar
17/8/94





CONTRATO DE CAPACITACION

Entre los suscritos, de una parte, GABRIEL TURBAY MARULANDA, mayor de edad y vecino de Santafé de Bogotá, identificado con la cédula de ciudadanía número 19.086.859 expedida en Santafé de Bogotá, quien obra en nombre y representación del Fondo Para el Financiamiento del Sector Agropecuario-FINAGRO-, sociedad de economía mixta del orden nacional debidamente constituida, tal como lo acredita el certificado de existencia y representación legal expedido por la Superintendencia Bancaria, que se anexa como parte integral de este documento, quien en adelante se denominara genéricamente FINAGRO, y de otra parte, EDGARDO R. MOSCARDI CARRARA, mayor de edad y vecino de Santafé de Bogotá, identificado como aparece al pie de su firma, quien obra en nombre y representación legal del INSTITUTO INTERAMERICANO DE COOPERACION PARA LA AGRICULTURA-IICA, entidad debidamente constituida y con personería jurídica, tal como lo acredita la certificación expedida por el Director General del Protocolo del Ministerio de Relaciones Exteriores, que se anexa como parte integral de este documento, quien en adelante se denominara genéricamente EL IICA, se ha celebrado el convenio que consta en las siguientes cláusulas. PRIMERA.- OBJETO: En desarrollo de este convenio, El IICA se obliga frente a FINAGRO a organizar y adelantar un programa de seminarios sobre "La innovación y trabajo en equipo para la realización de las políticas agropecuarias y pesqueras", que se realizará mediante la celebración de varios talleres y foros de formación de alta dirección, planeación y capacitación, en el periodo comprendido entre el 1o de agosto y el 31 de diciembre de 1994, a los cuales FINAGRO podrá asistir representado por 2 funcionarios por cada evento programado. SEGUNDA.- VALOR: Como contraprestación a las obligaciones de EL IICA, FINAGRO le reconocerá la suma total de SIETE MILLONES QUINIENTOS MIL DE PESOS (\$7,500.000.00) MCTE, que será cancelada a la firma del presente contrato, teniendo en cuenta que la preparación y ejecución de los elementos y materiales propios para adelantar el seminario se realizará con anterioridad a su celebración. El pago se realizará previa presentación de la cuenta de cobro correspondiente. TERCERA.- TERMINO: Este contrato estará vigente desde el 1o de agosto hasta el 31 de diciembre de 1994. CUARTA.- APROPIACIÓN PRESUPUESTAL: El presente convenio se ejecutara con cargo al certificado de Disponibilidad Presupuestal No. 2094 del 7 de julio de 1994. QUINTA.- INHABILIDADES E INCOMPATIBILIDADES: Leído el presente convenio, al suscribirlo, el representante legal de EL IICA declara bajo la gravedad del juramento que no se halla incurso dentro de las inhabilidades e incompatibilidades que la ley consagrará para su celebración. SEXTA.- SUPERVISION DEL CONTRATO: FINAGRO designa como supervisor para la ejecución y desarrollo del presente

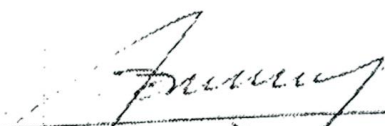

FONDO PARA EL FINANCIAMIENTO DEL SECTOR AGROPECUARIO - FINAGRO -

FINAGRO
FINAGRO

contrato al Director administrativo de la entidad, quien dará su visto bueno a las cuentas de cobro que presente EL IICA, requisito indispensable para su pago. Para constancia se firma en Santafé de Bogotá a los 29 días del mes de julio de 1994.



GABRIEL TURBAY MARULANDA
PRESIDENTE
FINAGRO



EDGARDO R. MOSCARDI CARRARA
REPRESENTANTE LEGAL
IICA

J.P.

183/94
SEA/IICA
REPUBLICA DOMINICANA



República Dominicana

SECRETARIA DE ESTADO DE AGRICULTURA

CARTA DE ENTENDIMIENTO ENTRE LA SECRETARIA DE ESTADO DE AGRICULTURA DE REPUBLICA DOMINICANA Y EL INSTITUTO INTERAMERICANO DE COOPERACION PARA LA AGRICULTURA (IICA), PARA EL APOYO A LA MODERNIZACION INSTITUCIONAL SECTORIAL

Entre la Secretaría de Estado de Agricultura de República Dominicana, representado por el Secretario de Agricultura sr. Agrón. Victor Hugo Hernández y el Instituto Interamericano de Cooperación para la Agricultura (IICA), representado por su Director General, Ing. Carlos Aquino González, se suscribe la presente carta de Entendimiento.

CONSIDERANDO

- 1- Que por la Ley No.08 del 1965, se constituyó la Secretaría de Estado de República Dominicana, siendo el Organismo Rector del sector, encargada de la formulación y dirección de la política agropecuaria y de la promoción del desarrollo del sector.
- 2- Que en el proceso reformas económicas y de apertura comercial le plantea la elaboración de una agenda de trabajo conducente a una revisión y modernización institucional, enmarcada y armonizada en un proceso de reforma institucional del Sector Agropecuario Dominicano.
- 3- Que es voluntad del IICA ratificar su compromiso de coadyuvar al proceso de reforma institucional del Sector Agropecuario Dominicano, para lo cual se suscribirían los convenios específicos pertinentes.
- 4- Que consistente con dicha voluntad, el IICA ha organizado una serie de reuniones de trabajo entre técnicos del Instituto y autoridades, así como una Misión Técnica que identificará el apoyo para respaldar esta iniciativa.
- 5- Que de acuerdo con la filosofía de trabajo imperante en el IICA de complementar capacidades mediante la articulación de alianzas estratégicas con instituciones de prestigio que potencialicen el esfuerzo de cooperación técnica en beneficio de los países del Sistema Interamericano, se procurará la conformación de un equipo de trabajo de alto nivel con apoyo de esas instituciones, que colabore con la Secretaría de Agricultura en el proceso de modernización institucional.

.../...



República Dominicana

SECRETARÍA DE ESTADO DE AGRICULTURA

HAN CONVENIDO LO SIGUIENTE:

A. Propósito de la Carta.

La presente Carta de Entendimiento se suscribe con la finalidad de establecer las bases para la cooperación entre ambas instituciones, mismas que se regirán por un Convenio de Cooperación Técnica que se suscribirá en su oportunidad.

B. Areas de Trabajo y Actividades.

Las áreas de trabajo que se establecen para la acción conjunta IICA-Secretaría de Agricultura y sus principales actividades para 1994, son las que a continuación se indican:

1- Apoyo a la Modernización Institucional

Colaborar con la Secretaría de Estado de Agricultura en la evaluación de sus estructuras orgánicas con el objetivo de lograr el fortalecimiento institucional en áreas tales como: Análisis y formulación de políticas y planes; Investigación y Extensión; Preservación y manejo de los Recursos Naturales; Producción y comercialización interna y externa; Mejoramiento de la Capacidad de Gestión y administración financiera.

Colaborar en la actualización institucional enmarcada dentro de la Reforma Estructural del Sector Agropecuario Dominicano.

La Colaboración del IICA se desarrollará a través de la participación del personal de la oficina del IICA en la República Dominicana, de los funcionarios del IICA en el exterior, de la movilización de cooperación horizontal de instituciones calificadas por su excelencia por las cuales se han forjado alianzas estratégicas, así como de consultores contratados para este efecto.

Esta cooperación estará coordinada por el Representante del IICA en República Dominicana.



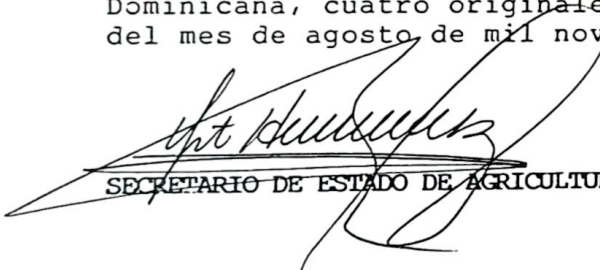
República Dominicana

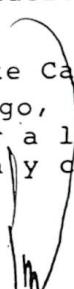
SECRETARIA DE ESTADO DE AGRICULTURA

c. PROCEDIMIENTO DE OPERACION

- a) Para la ejecución de las actividades concertadas, la Misión Técnica a la cual se alude en los Antecedentes, elaborará un Programa de Apoyo que se ejecutará en un esfuerzo compartido.
- b) Las acciones que se definan en el Programa de Apoyo se regularán por un Convenio de Cooperación que se suscribirá oportunamente entre ambas Instituciones.
- c) Cualquier otro que sea adecuado a los propósitos de esta Carta y conveniente a ambas Instituciones.

En conformidad con lo expuesto en la presente Carta de entendimiento, se firman en Santo Domingo, República Dominicana, cuatro originales de igual tenor a los días del mes de agosto de mil novecientos noventa y cuatro.


SECRETARIO DE ESTADO DE AGRICULTURA


DIRECTOR GENERAL IICA



República Dominicana

SECRETARIA DE ESTADO DE AGRICULTURA

CARTA DE ENTENDIMIENTO ENTRE LA SECRETARIA DE ESTADO DE AGRICULTURA DE REPUBLICA DOMINICANA Y EL INSTITUTO INTERAMERICANO DE COOPERACION PARA LA AGRICULTURA (IICA), PARA EL APOYO A LA MODERNIZACION INSTITUCIONAL SECTORIAL

Entre la Secretaría de Estado de Agricultura de República Dominicana, representado por el Secretario de Agricultura sr. Agrón. Víctor Hugo Hernández y el Instituto Interamericano de Cooperación para la Agricultura (IICA), representado por su Director General, Ing. Carlos Aquino González, se suscribe la presente carta de Entendimiento.

CONSIDERANDO

- 1- Que por la Ley No.08 del 1965, se constituyó la Secretaría de Estado de República Dominicana, siendo el Organismo Rector del sector, encargada de la formulación y dirección de la política agropecuaria y de la promoción del desarrollo del sector.
- 2- Que en el proceso reformas económicas y de apertura comercial le plantea la elaboración de una agenda de trabajo conducente a una revisión y modernización institucional, enmarcada y armonizada en un proceso de reforma institucional del Sector Agropecuario Dominicano.
- 3- Que es voluntad del IICA ratificar su compromiso de coadyuvar al proceso de reforma institucional del Sector Agropecuario Dominicano, para lo cual se suscribirían los convenios específicos pertinentes.
- 4- Que consistente con dicha voluntad, el IICA ha organizado una serie de reuniones de trabajo entre técnicos del Instituto y autoridades, así como una Misión Técnica que identificará el apoyo para respaldar esta iniciativa.
- 5- Que de acuerdo con la filosofía de trabajo imperante en el IICA de complementar capacidades mediante la articulación de alianzas estratégicas con instituciones de prestigio que potencialicen el esfuerzo de cooperación técnica en beneficio de los países del Sistema Interamericano, se procurará la conformación de un equipo de trabajo de alto nivel con apoyo de esas instituciones, que colabore con la Secretaría de Agricultura en el proceso de modernización institucional.

.../...



República Dominicana

SECRETARÍA DE ESTADO DE AGRICULTURA

HAN CONVENIDO LO SIGUIENTE:

A. Propósito de la Carta.

La presente Carta de Entendimiento se suscribe con la finalidad de establecer las bases para la cooperación entre ambas instituciones, mismas que se regirán por un Convenio de Cooperación Técnica que se suscribirá en su oportunidad.

B. Areas de Trabajo y Actividades.

Las áreas de trabajo que se establecen para la acción conjunta IICA-Secretaría de Agricultura y sus principales actividades para 1994, son las que a continuación se indican:

1- Apoyo a la Modernización Institucional

Colaborar con la Secretaría de Estado de Agricultura en la evaluación de sus estructuras orgánicas con el objetivo de lograr el fortalecimiento institucional en áreas tales como: Análisis y formulación de políticas y planes; Investigación y Extensión; Preservación y manejo de los Recursos Naturales; Producción y comercialización interna y externa; Mejoramiento de la Capacidad de Gestión y administración financiera.

Colaborar en la actualización institucional enmarcada dentro de la Reforma Estructural del Sector Agropecuario Dominicano.

La Colaboración del IICA se desarrollará a través de la participación del personal de la oficina del IICA en la República Dominicana, de los funcionarios del IICA en el exterior, de la movilización de cooperación horizontal de instituciones calificadas por su excelencia por las cuales se han forjado alianzas estratégicas, así como de consultores contratados para este efecto.

Esta cooperación estará coordinada por el Representante del IICA en República Dominicana.



República Dominicana

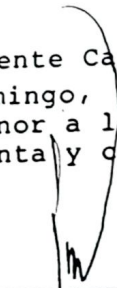
SECRETARIA DE ESTADO DE AGRICULTURA

C. PROCEDIMIENTO DE OPERACION

- a) Para la ejecución de las actividades concertadas, la Misión Técnica a la cual se alude en los Antecedentes, elaborará un Programa de Apoyo que se ejecutará en un esfuerzo compartido.
- b) Las acciones que se definan en el Programa de Apoyo se regularán por un Convenio de Cooperación que se suscribirá oportunamente entre ambas Instituciones.
- c) Cualquier otro que sea adecuado a los propósitos de esta Carta y conveniente a ambas Instituciones.

En conformidad con lo expuesto en la presente Carta de entendimiento, se firman en Santo Domingo, República Dominicana, cuatro originales de igual tenor a los días del mes de agosto de mil novecientos noventa y cuatro.


SECRETARIO DE ESTADO DE AGRICULTURA


DIRECTOR GENERAL IICA

179/94
DNOCS/IICA
BRASIL



Ruy Carlos
Boleta 24733

PUBLICADO NO D.O.U. DE 28,04,94
PÁGINA 7332

CÓDIGO DO CONVÊNIO / AJUSTE		
U. F.	SEQUÊNCIA	T. ADIT
DF	7332	04

EXTRATO

**MINISTÉRIO DA AGRICULTURA, DO ABASTECIMENTO
E DA REFORMA AGRÁRIA**

Secretaria Executiva

EXTRATO DE TERMO ADITIVO

a) FSP/ILIC: Quarto Termo Aditivo ao Convênio de Operação, que entre si, celebram a União Federal representada pelo Ministério da Agricultura, do Abastecimento e da Reforma Agrária, CGC 00.396.895/0067-51 e o Instituto Interamericano de Cooperação para a Agricultura, CGC 00.640.110/0001-18 assinado em 27/04/94.

b) OBJETIVO: Manutenção de pessoal técnico e de apoio administrativo contratados pelo IICA e que se encontram "sub-judice".

c) CRÉDITO: Ministério - à conta das atividades: 22.101.04.009.0020.2015.0046 - Coordenação e Orientação das Políticas Governamentais - Política Agrícola, no valor de CR\$ 14.000.000,00 (quatorze milhões de cruzeiros reais); 22.101.04.018.0110.2451-0001 - Cooperativismo e Associativismo Rural - Fomento e Autogestão Cooperativista, no valor de CR\$ 40.457.566,00 (quarenta milhões, quatrocentos e cinquenta e sete mil, quinhentos e sessenta e seis cruzeiros reais), Elemento de Despesa 3450-39 - Transferência a Instituições Privadas - Outros Serviços de Terceiros - Pessoa Jurídica - Empenhos Nos 94NE00087 e 00086, de 27/04/94 - SDR.

d) VALOR: Ministério - CR\$ 54.457.566,00 (cinquenta e quatro milhões, quatrocentos e cinquenta e sete mil, quinhentos e sessenta e seis cruzeiros reais).

e) PRAZO DE VIGÊNCIA: Até decisão administrativa ou judicial definitiva, não ultrapassando o prazo do Acordo-Geral publicado em 20/12/93.

f) ASSINATURAS: RICARDO ALVES DA CONCEIÇÃO - Secretário Executivo do Ministério da Agricultura, do Abastecimento e da Reforma Agrária, CI nº 386.664 SSP/DF e CPF 010.502.146-68 e VICTOR EDUARDO MACHINEA - Representante do IICA no Brasil - carteira de identidade nº P-108-91 - MRE, CPF - Isento.

(Of. nº 28/94)

TERMO ADITIVO Nº

CONVÊNIO DE OPERAÇÃO MAARA/SE/IICA Nº /93

Quarto Termo Aditivo ao Convênio de Operação que, entre si celebram a União Federal, representada pelo Ministério da Agricultura, do Abastecimento e da Reforma Agrária e o Instituto Interamericano de Cooperação para a Agricultura - IICA, objetivando a manutenção de pessoal técnico e de apoio administrativo contratados pelo IICA e que se encontram "sub-judice" até a conclusão do processo judicial ou decisão administrativa definitiva.

Aos 28 dias do mês de ABRIL do ano de mil novecentos e noventa e quatro, o Ministério da Agricultura, do Abastecimento e da Reforma Agrária, CGC nº 00.396.895/0067-51, situado na Esplanada dos Ministérios, Bloco "D", nesta Capital, doravante denominado **MINISTERIO**, representado neste ato pelo seu Secretário-Executivo, Doutor RICARDO ALVES DA CONCEICÃO, residente e domiciliado à SRS 303 Bloco "B" Aptº 201 - Brasília-DF, portador da Carteira de Identidade nº 386.664, órgão expedidor SSP/DF e C.P.F. nº 010.502.146-68, nos encargos de Secretário-Executivo, conforme delegação de competência conferida pela Portaria Ministerial nº 437, de 27 de agosto de 1993, e publicado no Diário Oficial da União de 31 de agosto de 1993, e o Instituto Interamericano de Cooperação para a Agricultura, organismo vinculado à Organização dos Estados Americanos (OEA), CGC 00.640.110.0001-18, doravante denominado **IICA**, representado neste ato pelo seu representante no Brasil, Doutor VICTOR EDUARDO MACHINEA, residente à SHIS - QI 25, Conjunto 10, Casa 09, Brasília-DF, portador da Carteira de Identidade nº P108/91 - M.R.E. - Isento de C.P.F., poder geral outorgado pelo Diretor-Geral do IICA, Doutor MARTIN PINEIRO FAGLIERI, através da Procuração Geral nº 8.773, de 11.06.91, resolvem celebrar o presente **TERMO ADITIVO**, sujeitando-se os convenientes às normas da Instrução Normativa 02 de 19 de abril de 1993 da Secretaria do Tesouro Nacional, do Decreto nº 93.872 de 23 de dezembro de 1986, bem como da Resolução nº 70 IICA/JIA de 23 de outubro de 1985, normalizada pela Ordem Executiva nº 06/87, Decreto Legislativo nº 216 de 27 de novembro de 1991 e Decreto 361 de 10 de dezembro de 1991, mediante as cláusulas e condições seguintes:

CLÁUSULA PRIMEIRA - DOS OBJETIVOS

O presente **TERMO ADITIVO** tem por objetivo repasse complementar de recursos com vista a manutenção da equipe técnica e de apoio administrativo da Secretaria de Desenvolvimento Rural, contratados através de convênio com o **IICA**, que se encontra com situação funcional "sub-judice" até a decisão do processo judi-

cial ou decisão administrativa definitiva.

CLÁUSULA SEGUNDA - DA CLASSIFICAÇÃO FUNCIONAL PROGRAMÁTICA E ECONÔMICA DA DESPESA

A despesa do **MINISTÉRIO** com a execução deste **TERMO ADITIVO** para o presente exercício, será no valor total de CR\$ 54.457.566,00 (cinquenta e quatro milhões, quatrocentos e cinquenta e sete mil, quinhentos e sessenta e seis cruzeiros reais), sendo que CR\$ 40.457.566,00 (quarenta milhões, quatrocentos e cinquenta e sete mil, quinhentos e sessenta e seis cruzeiros reais), correrão à conta das dotações alocadas no Projeto/Atividade 22.101.04.018.0110.2451-0001 - Cooperativismo e Associativismo Rural - Fomento à Autogestão Cooperativista, Elemento de Despesa: 3450.39 - Transferências a Instituições Privadas - Outros Serviços de Terceiros - Pessoa Jurídica; e CR\$ 14.000.000,00 (quatorze milhões de cruzeiros reais) correrão à conta das dotações alocadas no Projeto/Atividade 22.101.04.009.0020.2015-0046 - Coordenação e Orientação da Políticas Governamentais - Política Agrícola, Elemento de Despesa: 3450.39 - Transferências a Instituições Privadas - Outros Serviços de Terceiros - Pessoa Jurídica.

Empenho nº 94 NE 00086 e 94 NE 00087

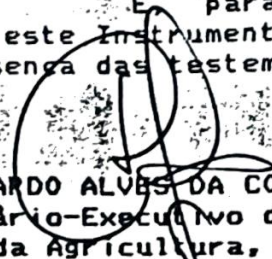
CLÁUSULA TERCEIRA - DA RATIFICAÇÃO

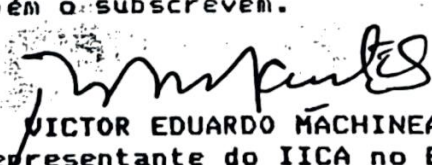
Todas as demais cláusulas e parágrafos do Convênio de Operação MAARA/SE/IICA Nº não atingidas pelo presente Instrumento ficam ratificadas.

CLÁUSULA QUARTA - DA PUBLICAÇÃO


O presente **TERMO ADITIVO** será publicado, em extrato, no Diário Oficial da União, devendo ocorrer no prazo de 20(vinte) dias.

E para firmeza e validade do que foi avençado, firmam este Instrumento em 3 (três) vias, de igual teor e forma, na presença das testemunhas que também o subscrevem.


RICARDO ALVES DA CONCEIÇÃO
Secretário-Executivo do Ministério da Agricultura, do Abastecimento e da Reforma Agrária


VICTOR EDUARDO MACHINEA
Representante do IICA no Brasil

Testemunhas


Eugênio Neto F. de Miranda


Maria Helena Pires de Lacerda

CPF: 646 238 4018

CPF: 001116603-78



MAARA
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Boyd

MINISTÉRIO DA AGRICULTURA, DO ABASTECIMENTO E DA REFORMA AGRÁRIA
SECRETARIA DE ADMINISTRAÇÃO GERAL
COORDENAÇÃO GERAL DE ORÇAMENTO E FINANÇAS

PLANO DE TRABALHO

IDENTIFICAÇÃO

01- MODALIDADE : () CONVENIO (X) TERMO ADITIVO () REPROGRAMAÇÃO ; PT-01 ; FOLHA 1 DE 3
02- CONTROLE : DATA / / PROPONENTE: IICA ; PT.Nr.
UF: DF ; PROCESSO:

03- DADOS CADASTRAIS

Órgão/Entidade Proponente : Instituto Interamericano de Cooperação para Agricultura - IICA ; C.O.C. 00.340.110/0001-10

Endereço : SHIS - QI 05 - Conj. 09 - Bloco D - Comércio Local

Cidade : Brasília ; UF : DF ; CEP : 71.600 ; DDD/Telefone : (061) 240-5477 ; Esfera Adm. : Organismo Internacional

Conta Corrente : 75.085-X ; Banco : do Brasil ; Agência : 3129-1 ; Praça de Pagamento : Brasília - DF

Nome do Responsável : Victor Eduardo Machinea ; C.P.F. : Isento

C.I./Órgão Expedidor : P-108/91-MRE ; Cargo Representante do : IICA no Brasil ; Função : Representante ; Matrícula :

Endereço : SHIS - QI 25, Conj. 10, Casa 09, Brasília, DF ; C.E.P. : 70.624

Órgão/Entidade Interveniante : ; C.O.C. : ; Esfera Adm. :

Endereço : ; C.E.P. :

Cód. - Especificação do Projeto/Atividade/Subtítulo ; Período de Execução
22.101.04.009.0020.2015-0046 - Coord. e Orient. das Pol. Governamentais ; Início : Término
Política Agrícola ; Abr/94 : Abr/94
22.101.04.010.0110.2451-0001 - Cooperat. e Associat. Rural Fomento e Autogestão ;
Cooperativista ; ;

04- JUSTIFICATIVA DA PROPOSIÇÃO

Descrição: O Instituto Interamericano de Cooperação para a Agricultura - IICA, é um organismo internacional especializado em agricultura criado em 1942 e faz parte do Sistema Interamericano da Organização dos Estados Americanos - OEA. Dentre suas atribuições o IICA objetiva estimular, promover e apoiar os esforços dos países membros daquela organização a fim de alcançar o desenvolvimento agrícola e o bem estar das populações rurais. O IICA tem 33 países membros. Os técnicos e pessoal de apoio vinculados a este instrumento trabalham no Ministério há pelo menos 10 anos e estão desempenhando atividades incorporadas às atribuições desta Pasta. Aguarda-se a decisão judicial ou administrativa para solução do caso.

IDENTIFICAÇÃO DO OBJETO

Descrição: O presente CONVENIO DE OPERAÇÃO tem por objetivo manter a equipe técnica e de apoio administrativo que se encontra "sub-judice" até a decisão do processo judicial ou decisão administrativa definitiva.

MINISTÉRIO DA AGRICULTURA, DO ABASTECIMENTO E DA REFORMA AGRÁRIA
 SECRETARIA DE ADMINISTRAÇÃO GERAL
 COORDENAÇÃO GERAL DE ORÇAMENTO E FINANÇAS

PLANO DE TRABALHO

Identificação das Partes:

Ministério da Agricultura, do Abastecimento e da Reforma Agrária - MAARA e o
 Instituto Interamericano de Cooperação para Agricultura - IICA.

PT-03

07- PLANO DE APLICAÇÃO (CR\$ 1,00)

FOLHA

3 de 3

Natureza da Despesa

Código : Especificação

Total : Ministério : Proponente

3450-39 : Transferência a Instituições Privadas - Outros Serviços de
 Terceiros - Pessoa Física - Jurídica

154.457.566 154.457.566

TOTAL GERAL

154.457.566 154.457.566

08- CRONOGRAMA DE DESEMBOLSO (CR\$ 1,00)

Concedente

Meta : Jan : Fev : Mar : Abri : Mai : Jun

91/82 : : : : 54.457.566 : : :

Meta : Jul : Ago : Set : Out : Nov : Dez

Proponente (contrapartida CR\$ 1,00)

Meta : Jan : Fev : Mar : Abri : Mai : Jun

Meta : Jul : Ago : Set : Out : Nov : Dez

Declaração

Na qualidade de representante legal do proponente declaro para fins de prova junto ao Ministério da Agricultura, do Abastecimento e da Reforma Agrária para os efeitos e sob as penas da lei, que não existe qualquer débito em mora ou situação de inadimplência com o Tesouro Nacional ou qualquer órgão ou entidade da Administração Pública Federal, que impeça a transferência de recursos oriundos de dotações consignadas nos orçamentos da União, na forma deste plano de trabalho.

Local e Data

PropONENTE

[Handwritten Signature]

Aprovação pelo concedente

Assinado

Local e Data

[Handwritten Signature]

Ricardo Alvaro da Conceição
 Secretário-Executivo
 Ministério da Agricultura, do Abastecimento e da Reforma Agrária

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