
**MID-TERM EVALUATION
OF CAPE VERDE TITLE II MONETIZATION PROGRAM**

**PROJECT NAME:
CAPE VERDE PL-480
FOOD FOR PEACE 100% MONETIZATION PROGRAM**

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II. Table of Contents

I.	Cover Page	a
II.	Table of Contents	b
III.	List of Acronyms and Abbreviations	d
IV.	Executive Summary	1
V.	Introduction	3
VI.	Background	5
VII.	Findings	7
	A. PL-480 Title II Food Aid Monetization Program Administration, and Monitoring and Evaluation	7
	B. Objective # 1: Support Soil and Water Conservation Activities Through Watershed Associations	12
	C. Objective #2: Introduce New Technologies Which Conserve Water and Raise Yields	15
	D. Objective #3: Micro Enterprise and Small Business Promotion	16
VIII.	Impact	20
	A. Baseline Study Data	20
	B. Institutional Impacts	27
	C. Specific Activity Impacts	29
	D. Meeting Objectives in Food Security, Gender, Democratization and Environment	30
IX.	Recommendations	33
	A) PL-480 Food Aid Monetization, Program Management and Monitoring and Evaluation	33
	B. Objective #1: Support Soil and Water Conservation Activities Through Watershed Associations	34
	C. Objective #2: Introduce New Technologies Which Conserve Water and Raise Yields	36
	D. Objective #3: Micro Enterprise and Small Business Promotion.	37
X.	Conclusions and Lessons Learned	38
XI.	Bibliography	40

XII. Lists of People Contacted 42

XIII. Site Visits 44

XIV. Appendices 53

 Appendix i Cape Verde Commodity Costs 54

 Appendix ii Cape Verde ACDI/VOCA Organization Chart 56

 Appendix iii Local Currency Receipts and Disbursements 57

 Appendix iv ACDI/VOCA Memorandum, Subject: Drip Irrigation Installed 59

 Appendix v Table 2 Annual Monitoring Indicators - Annual Targets 60

 Appendix vi Table 3 Impact Indicators - Annual Targets 61

III. List of Acronyms and Abbreviations

ACDI/VOCA	Agricultural Cooperative Development International (ACDI) and Volunteers in Overseas Cooperative Assistance (VOCA) merged January 1, 1997 - references to prior to that time will be to ACDI
ACP	Asian, Caribbean and Pacific
AER	Annual Estimate of Requirements
AR	Animação Rural (Rural/Agricultural Extension Service)
ARR	Annual Results Report
CCC	Commodity Credit Corporation (division of United States Department of Agriculture)
CCR	Caixa Crédito Rural (GOCV Rural Credit Institution)
CECV	Caixa Economica de Cabo Verde
CF	Call Forward
C&F	Cost and Freight
CILSS	Comité Inter Estados para a Luta Contra a Seca no Sahel (Interstate Committee for Drought Alleviation in the Sahel)
Cos	DGASP's watershed-based community organizers
CPC	Caixa Poupança e Crédito (Savings and Credit Fund, or Credit Union)
CRWT	Contour Rock Wall Terrace
CVB	Contour Vegetative Barrier
CVE	Cape Verdean Escudos (local currency)
CY	Calendar Year
DAP	Development Activities Proposal
DER	Divisão de Engenharia Rural (DGASP's Division of Rural Engineering)
DGAR	Direcção Geral de Animação Rural (General Directorate of Rural Extension)
DGASP	Direcção Geral de Agricultura, Silvicultura e Pecuária (General Directorate for Agriculture, Forestry, and Animal Husbandry)
DGCI	Direcção Geral de Cooperação Internacional (General Directorate of International Cooperation, a division of the Ministry of Foreign Affairs)
EMPA	Empresa Pública de Abastecimento (State-owned Supply Company)
ENAPOR	Empresa Nacional de Administração dos Portos EP (National Port Administration Company - Public Enterprise)
EU	European Union
FAIMO	Frentes de Alta Intensidade de Mão de Obra (Labor-intensive Work Front)
FAS	Free Along Side (Refers to price of commodity prior to shipment at U.S. Port)
FDN	Fundo Nacional de Desenvolvimento (GOCV National Development Fund)
GEP/MAAA	Gabinete de Estudos e Planeamento de Ministério de Agricultura, Alimentação e Ambiente (Office of Studies and Planning of the Ministry of Agriculture, Food and Environment)
GOCV	Government of Cape Verde
ha	Hectare (1 ha = 2.471 acres)
HCN	Host Country National
IADE	Instituto de Apoio ao Desenvolvimento Empresarial (Institute for the Development of Enterprises)
ICA	Individual Country Food for Peace Agreement between the GOCV and ACDI/VOCA.
ICS	Instituto Caboverdeana de Solidariedade (Cape Verdean Solidarity Institute)
IEE	Initial Environmental Examination
IEFP	Instituto de Emprego e Formação Profissional (Institute of Employment and Trade Training)
IIF	IADE Investment Fund
INERF	Instituto Nacional Engenharia e Floresta (National Institute for Rural Engineering and Forestry)
INFA	Instituto Nacional Fomento Agro-Pecuária (National Institute for the Promotion of Agriculture and Livestock)
INIDA	Instituto Nacional de Investigação e Desenvolvimento Agrário (National Institute for Agricultural Research and Development)
LC	Local Currency (Cape Verdean Escudos, CVE). The CVE, or "LC" is the "foreign currency"

M	Million
m and m ³	Meter and Cubic Meter
MAAA	Ministério da Agricultura, Alimentação e Ambiente (Ministry of Agriculture, Food and Environment)
MEC	Ministério da Coordenação Económica (Ministry of Economic Coordination)
METLP	Micro Enterprise Training and Lending Program
MEWS	Monitoring and Evaluation / Watershed Specialist (may also be referred to as Long Term MEWS)
MFA	Ministério dos Negócios Estrangeiros e das Comunidades (Ministry of Foreign Affairs and Communities)
MOAVE	Moagem de Cabo Verde ARL (State-owned flour milling firm)
MOU	Memorandum of Understanding
MM/MFE	Monetization Program Manager / Micro Enterprise Finance Expert
MT	Metric Tons
NGO	Non-governmental Organization
OASIS	Organização das Associações de Agricultores, Avicultores e Pecuários da Ilha de Santiago (association umbrella organization)
OMB	Office of Management and Budget (of the United States Government)
PAA	Previously Approved Activity
PL-480, FFP	Public Law 480, Food for Peace Program
PWDP	Participatory Watershed Development Plan
RA	Recipient Agency (entity receiving Title II funds)
RAA	Recipient Agency Agreement
RE/F	Rural Engineering and Forestry
REW	Rural Engineering Works
RIG	Regional Inspector General (USAID)
SBLP	Small Business Lending Program (CECV)
SMA	Special Monetization Account
SEPA	Secretariado Executivo para o Ambiente (Executive Secretary for Environment)
SP	Strategic Planning
ST TA	Short-Term Technical Assistance
SWC	Soil and Water Conservation (includes REW and forestry)
TA	Technical Assistance
TAR	Tecnico Auxiliare de Ribeira (another name for community organizer, CO)
UNDP	United Nations Development Program
USAID	The United States Agency for International Development
USDA	United States Department of Agriculture
USG	United States Government
WADS	Watershed Association Development Specialist (HCN)
WARD	Watershed and Applied Research Development Project (USAID-funded)
WDC	Watershed Development Consultant

IV. Executive Summary

The PL-480 Title II Monetization Program generates over \$3,128,000 / year in local currency. Sales are conducted in a very professional manner and the spreadsheets chronicling the estimated and actual costs of landed commodity, negotiated sales price, losses, and the level of cost recovery is a model all monetization programs should adopt. Despite the fact that corn, a preferred commodity in Cape Verde, was off the PL-480 docket for almost two years the program successfully substituted wheat, beans, and rice. As the grain trade is liberalized in Cape Verde, PL-480 corn and wheat should continue to be sold through negotiated sales agreements rather than sealed bid tender.

The PL-480 Title II Monetization Program is moving steadily towards achieving its three objectives. **Support to soil and water conservation activities through watershed associations** is on track. Contracts for over \$6,000,000 will be tendered to Associations over the next three years to plant trees and to construct check dams, rock wall terraces, sub-surface dams, reservoirs, and canals. If profit margins for the past two years are sustainable Associations will earn a little over a \$1,000,000 over the next three years. This is serious money for rural community based organizations led by young and enthusiastic men and women in their 20's. Many of the Associations were organized and trained by the umbrella group OASIS, with technical assistance provided by ACDI/VOCA. Associations have been recognized throughout Cape Verde as the most efficient, effective means to carry out soil and water conservation works. Success at an early age, however, can be damaging and the program needs to direct more time and resources into in-service training of Association members and leaders. This training should focus on increasing awareness of the roles, responsibilities, and rights of Association membership especially as it relates to contracting donor financed public works. Works in progress have to be rigorously and conscientiously inspected whether by DGASP or technicians working directly for OASIS or ACDI/VOCA.

The program is investing in drip irrigation (est LOP disbursements of \$1,300,000) in order to **introduce new technologies which conserve water and raise yields**. To encourage farmers to adopt drip irrigation, the program installed a number of demonstration plots and provided farmers with technical assistance as well as reservoirs, pumps, hose pipes, T-Tape, filters, valves, couplings, etc. Farmers having good results are installing additional drip equipment, at their own expense, on adjacent areas traditionally irrigated using flood techniques. This is an encouraging development. The PL-480 Title II program plans to capitalize a credit facility managed by CECV specifically to provide loans for drip irrigation. The FAO has strongly supported drip irrigation in Cape Verde and has received significant grant support from the PL-480 Program. According to FAO, the net profit estimate for drip irrigated vegetable production in Cape Verde is \$21,000 -\$28,000 / hectare / year. These figures appear to be highly optimistic otherwise farmers would be replacing their much lower margin drip irrigated bananas with cabbage, carrots, onions, and peppers. ACDI/VOCA should use these net profit estimates with caution especially when farmers are encouraged to use credit to adopt drip irrigation technology. Good drip

irrigation sites in Cape Verde are like real estate in the U.S. - location is everything. Drip systems work best where there's reliable water and a reservoir located high enough above the plot to pressurize the system by gravity rather than a pump.

The PL-480 program has capitalized three credit facilities in Cape Verde to **help promote micro enterprises and small business**. Two of these facilities are fully operational and growing - the Micro Enterprise Training and Lending Program managed directly by ACDI/VOCA and the Small Business Loan Program managed by CECV. The program is planning to provide funds for two additional programs and to provide technical assistance to a credit facility capitalized by Association profits. On-time repayment for the METLP is over 97 %. As their businesses grow borrowers using this facility for loans up to \$350 may later apply for small business loans for larger amounts payable at lower interest rates.. Both these programs target female borrowers especially those needing operating capital to buy and sell fish, vegetable, fruit, processed foods, and clothing. Funding several facilities rather than just one or two makes sense. Risks are spread over several institutions and different market niches are served.

The program successfully addresses USAID objectives in food security, gender, democratization, and environment. It is at this point premature to make suggestions concerning future programs except that it should continue to address the same problems.

V. Introduction

The PL- 480 Title II Food Monetization program in Cape Verde is heir to some 20 years of prior effort in similar activities. It has sifted and refined this history, profited by lessons learned, developed a more integrated approach and greatly strengthened participation in most of its elements. It has enhanced prospects of sustainability through credit and business development.

The program is appropriately targeted on the poor, especially the rural poor, some 40 percent of the population which needs the additional food and income arising from employment on soil and water conservation works. The development and strengthening of its rural Associations empowers rural people and reduces the dependency built up over many years of working in paternalistic state programs. It fits within, and its experience has influenced, such major national programs as the Anti-Desertification and Anti-Poverty Campaigns. It is squarely within the policy and priority framework of the GOCV's current 1997 – 2000 National Development Plan.

The Cape Verdean context, i.e., structural food deficit, population pressure on an inherently poor and degraded land base, major unemployment, minimal foreign exchange, low earning capacity – compensated for by official (aid) and private transfers (emigrant remittances) – will not change in the short run. The program addresses many of these problems, reduces their impact on the poorest members of society and helps strengthen and extend democratic and empowerment processes already in place at the national and district level. To illustrate the program's role, the Prime Minister recently announced (November 5, 1998) the creation of 18,000 jobs over the next three months. This job creation was necessary due to a very poor crop year with short rainfall and insect pests. The ACIDI/VOCA program will provide from 3,000 to 4,000 of these jobs through its contracts with Associations for soil and water conservation work and afforestation, roughly 20 percent of the total. The GOCV announced that a fund of two billion CVE (\$21,276,600 at current exchange rates) will be made available for this emergency program.

To evaluate this conceptually sound project, ACIDI/VOCA selected two consultants with prior Cape Verde experience and language capacity to carry out the mid-term evaluation of the program as required by the DAP. They have a combined nine years' experience in management and senior technical functions with comparable projects in Cape Verde which pre-date the initiation of this PL- 480 Title II Monetization Program in May 1996. The method used consisted of three elements. One was to review the voluminous program documentation, studies and reports from earlier food aid/watershed development programs and framework documents, e.g., National Development Plan, Food Needs Assessments, Anti-Desertification and Anti-Poverty program descriptions and pertinent World Bank studies. These are listed in the Bibliography. The next element was interviews with ACIDI/VOCA and GOCV staff involved in executing the program, respected observers known to the consultants, field level operators and Association members, senior concerned GOCV officials and other NGO and donor representatives.

The third element consisted of site visits and interviews with participant/beneficiaries and field technicians involved in the on-the-ground program implementation. This included Associations on Santiago and Fogo Islands and drip irrigation operations. Site visit reports are included in section XIII. Earlier draft texts were checked with ACIDI/VOCA and other sources to confirm factual data, understandings and analyses, and to capture clearly differing viewpoints prior to presentation in final draft form.

VI. Background

ACDI/VOCA's five year FY 1997-FY 2001 PL-480 Title II monetization proposal was submitted to AID/W on May 23, 1996. The monetization proposal for \$14,580,000 of food aid and \$1,131,315 of 202(e) money was approved on September 11, 1996. The 202(e) grant was amended for a LOP total of \$2,106,194 to provide funding for an additional expatriate position, cover some additional administrative costs, and to organize an environmental workshop in March, 1998. Approximately \$1.25 million in additional PL-480 Title II funding for a total of \$15,829,536 was granted to the project in response to the 1996 drought, the need for additional training funds, and to cover ACDI/VOCA NICRA for FY 1998-FY 2001.

ACDI/VOCA's FY 1997-FY 2001 Cape Verde PL-480 Title II monetization program is an extension, practically speaking, of a series of soil and water conservation, and agricultural research and extension projects dating back to the late 1970's when AID and the GOCV signed the first PL-480 Title II Agreement for approximately 15000 MT of corn per year. The GOCV has always insisted that food aid be sold to state parastatals and the receipts used to hire poor people for public works. AID financed public works programs have almost exclusively focused on providing employment for the rural poor on Santiago through the construction of physical soil and water conservation structures such as contour rock wall terraces, gully plugs, check dams, subsurface dams, protection walls, canals, and water tanks. Extensive tree planting activities have traditionally complemented the construction of physical structures.

AID financed technical assistance for soil and water conservation and agricultural research has taken a number of forms ranging from a PASA contract with the United States Soil Conservation Service for the Watershed Management Project (1981-1985), to Title XII grants such as the Utah State University's Tarrafal Water Management and Irrigation Project (circa 1980) the University of Arizona Food Crops Research Project (1984-1992), and Sheladia Associates and Oregon State University TA contract for the Watershed Development Project (1986-1990). ACDI has managed PL-480 Title II sales in Cape Verde since 1992 when AID insisted that monetization proceeds be deposited into a separate NGO managed account rather than co-mingled into the National Development Fund. It was at this juncture when responsibility for sale of PL-480 Title II food aid commodity passed from the USAID/GOCV to ACDI/VOCA.

Under the Watershed and Applied Research Development Project (WARD) from 1992-June, 1996 ACDI/VOCA continued to support agricultural research, soil and water conservation, and forestry activities. It was under WARD when Tom Gardiner, the project Watershed Development Specialist, resurrected a variant of the old "reconverted work fronts" started by Gardiner and Amadeu Silva in 1987 under the Watershed Development Project. These "reconverted work fronts" were organized by a core group of 6 grassroots farmer to farmer focused extensionists, trained by Silva under the Watershed Management Project. This Rural Assistance Program was later expanded into a core group of 21 community based extensionists under the Watershed Development Project. Community extensionists have been trained using the participatory,

bottom up training model for community organizers. It is this core group of rural community based agriculture extensionists and soil conservationists many, who are now employed by DGASP who serve as community organizers and contract supervisors for the Associations. These community organizers are the institutional link between the Associations, the GOCV, and ACDI/VOCA. PL 480 Title II monetized food aid is still the source of funding for most Association public works contracts.

The importance of this money (approximately \$1,960,910 in Association contracts planned for 1998) circulating around the rural areas is nothing new but cannot be overstated. What's new is that most Associations now have contract profit margins on SWC contracts of 15%-20% . If you subtract 30% of the profits as a year end dividend payment payable as a wage bonus, the remaining balance is \$205,000-\$275,000. (Note that this an addition to 1997 profits of \$138,000.) This is a substantial amount of potential seed capital controlled by rural community Associations who have never had access to such potential financial leverage. The fact that more than 30 rural Associations have bank accounts with significant levels of funding on deposit is an extraordinary and historic development in Cape Verde.

AID in particular deserves a lot of credit for this latest success by its willingness to 1) provide a continuous source of Title II food aid since the late 70's and 2) finance a coherent series of projects which have been designed and managed according to lessons learned in the past.

VII. Findings

A. PL-480 TITLE II FOOD AID MONETIZATION, PROGRAM ADMINISTRATION, AND MONITORING AND EVALUATION

1) PL-480 Title II Food Aid Monetization

ACDI/VOCA's Program Manager has developed a series of richly detailed spreadsheets for each PL-480 Title II commodity shipment and sales agreement filled with all the information anyone needed to discover the: date of the sales contract, date of delivery, MT shipped, MT discharged, actual unit cost of commodity ex-load port per commercial invoice, actual unit freight costs per B/L, FFP's estimated price FAS per MT, estimated C&F per MT, actual negotiated sales price, FFP's cost recovery benchmark (80% estimated C&F), actual cost recovery benchmark C&F, expected sales proceeds, % shrinkage, and payment terms. (See Appendix i)

Number 2 yellow corn has been the traditional commodity preference in Cape Verde since the beginning of the program over twenty years ago. Corn was removed from the USDA/CCC food aid docket in October, 1995 and was not replaced until three years later in May 1997. It was removed from the docket again from late 1997 until mid-1998. The removal of corn from the PL-480 docket was unexpected and created some interesting challenges for ACDI/VOCA's Monetization Manager. Beans and rice were called forward and sold to EMPA and a new market was found for US wheat.

Since FY 1997 long grain rice (3798 MT), medium grain rice (4802 MT), hard red winter wheat (5000 MT), soft red winter wheat (5000 MT), pinto beans (608 MT), red kidney beans (609 MT), and # 2 yellow corn (8630 MT) have been shipped by ACDI/VOCA to Cape Verde. All commodity was sold at a negotiated price to two firms. EMPA, a state trading firm soon to be privatized, bought the rice, corn, and beans. MOAVE, the recently privatized and only flour mill in Cape Verde, bought the wheat. The wheat, corn, and beans were sold at competitive world market prices. The long grain rice was sold substantially above world market price (\$414/MT C&F vs \$320 MT C&F) since US rice is usually highly uncompetitive compared to East Asian suppliers. The medium grain rice was sold for \$330/MT, still well above the world market price for # 2 rice, but substantially below CCC actual C&F Praia of \$464/MT. The reason for this is quite simple. ACDI/VOCA "called forward" long grain rice, signed a deal with EMPA for long grain rice but received medium grain rice. The contract had to be renegotiated at a substantial loss both to the program (est \$400,000) and to the commercial buyer (est \$300,000).

The lesson here is selling food aid commodity at competitive world prices is dependent on everyone in the transaction performing as well as commercial traders. This includes the CCC, FFP, the freight forwarder, as well as the cooperating sponsor.

Payment for PL-480 Title II commodity is denominated in CVE with a provision in the sales

agreement that if the CVE is devalued by over 10% against the US\$ the unpaid portion of the shipment will be adjusted to reflect the new exchange rate. The sales agreement also explicitly states that the buyer is responsible for any port, unloading, transport, or storage charges not covered under the charter agreement.

ACDI/VOCA has been in the fortunate position of transferring title of the commodity to the buyer at the point of unloading without requiring full payment before call forward, costly commercial bank guarantees, or confirmed letters of credit. The Ministry of Finance is a co-signatory with a promise to pay ACDI/VOCA unpaid balances in case of default. Payment terms range from 30% on arrival, 40% after 60 days, and 30% after 90 days to 25% on arrival, 25% after 60 days, 25% after 105 days, and 25% after 150 days depending on the contract.

The structure of the cereals market in Cape Verde has partly governed the way ACDI/VOCA and their two commodity customers do business. MOAVE has a monopoly on flour milling, and for the moment, EMPA has a monopoly on the importation of corn, rice, and beans. When ACDI first began selling corn to EMPA in 1992 there was no negotiation. EMPA paid 10,000 CVE /MT for # 2 yellow corn (\$120 - \$ 156 / MT depending on the exchange rate) , a price fixed by the GOCV. Starting in 1994 ACDI began selling PL-480 Title II corn to EMPA on a more commercial basis - through a negotiated sales agreement based on current world market prices.

GOCV involvement in the wheat trade in Cape Verde has changed as it divests share in MOAVE. When MOAVE was government controlled it only paid 9,000 CVE/MT (approx \$100/MT) for monetized donor food aid (predominately European). This was usually about 60% of the actual delivery cost of wheat CIF Praia.. The 9,000 CVE/MT was deposited into the National Development Fund to finance public works. In turn, wholesale and retail flour prices were fixed. As MOAVE privatized and started to buy commercially on the world market it continued to pay up 9,000 CVE/MT for wheat while the GOCV paid the balance. The quid pro quo being that MOAVE would continue to sell flour at a fixed price on all the islands in the archipelago. Now that MOAVE is completely private the payment formula changes as the world price for wheat fluctuates in relation to the fixed price for flour in Cape Verde. MOAVE now deposits 18,000 CVE/MT (approx \$200 / MT) into a counterpart fund account for non-US bilateral food aid wheat. For the time being this is slightly above the estimated price of wheat CIF Mindelo, Cape Verde. Under the privatization agreement MOAVE will maintain its monopoly on flour milling and the GOCV will prohibit the commercial import of wheat flour for the next four years.

EMPA will be privatized soon. The plan is to split it up, sell the commercial side and create a National Food Security Agency to buy and store grain reserves. Four years ago EMPA lost their monopoly on the import of cement and reinforcing bar which was traditionally their big money making items and which tended to subsidize their money losing trade in food. There are plans now to open up the trade in corn, beans, and rice to other commercial firms besides EMPA. If this happens before project completion date it could complicate ACDI/VOCA's food aid

monetization task. Competitive tenders and auctions require a lot more management than negotiated sales. Deals may have to be financially engineered using either bank guarantees, confirmed letters of credit, or payment in full before "call forward". If for any reason buyers were unable to take possession of commodity at point of discharge ACDI/VOCA would have to get into the commodity storage and wholesale business. Under the restructuring individual buyers will be able to purchase large lots (5,000 - 10,000 MT) through negotiated sale. The EU food security advisor suggested, however, that the new National Food Security Agency could emerge as the only serious potential buyer of food aid commodity. The Food Security Agency would then sell grain stocks as needed to moderate price fluctuations and maintain reserves.

2) Program Administration

See **Appendix ii** for Program Organization Chart

The ACDI/VOCA's Cape Verde PI-480 Title II Monetization Program is currently fully staffed. The Monetization Manager, Iven L. Ose, replaced ACDI/VOCA's first Monetization Program Manager, Les Glad, in August, 1994. Mr. Ose's contract was recently extended for another three years until program completion in September 30, 2001.

Suzanne E. Schwoebel, the program Monitoring and Evaluation/Watershed Specialist started work in June, 1998 under a two year contract. Ms. Schwoebel replaced Dana Baer who left the project in July, 1998 after working for the program for three years

Amadeu Silva, Watershed Association Management Specialist, was hired by ACDI/VOCA in February, 1997. Mr. Silva was previously employed by DGASP where he was Director of Rural Engineering and has worked extensively the past fifteen years training agricultural extensionists and organizing Associations.

Ulisses Delgado, the Drip Irrigation Specialist, was hired by ACDI/VOCA in April, 1998. When the first phase (February, 1996-March, 1997 - LOP Budget \$204,417) of the FAO/INFA drip irrigation project ended, ACDI/VOCA hired two local irrigation specialists to keep the program going. They worked directly for ACDI/VOCA from April, 1997 until September, 1997 when they returned to FAO to work on the second phase of the program. (September, 1997-December, 1998 - LOP Budget \$254,654)

Eugenia Pires and Apolinaria Barbosa were hired as Loan Officers under the Micro Enterprise Training and Lending Program in August, 1997. Two more Loan Officers, Carmencita Baptista and Antonia da Luz, were hired in May, 1998. Luisa Goncalves, the program Accountant was hired in January, 1998.

The Watershed Association Accounting Specialist, Filipe Silva, was hired January, 1998. He replaced the first full time Association Accounting Specialist, Mario Rosario, who was hired at

the beginning of the project in 1996.

The overall program Administrative Assistant, Helena Pina was hired in 1992.

The program has an on-going arrangement with Tom Gardiner, ACIDI/VOCA's Director of Natural Resource Management, to work approximately 42 days/year for the program to provide in-service training to DGASP community organizers, the Associations, and OASIS staff. Mr. Gardiner also conducts on-going and measurable performance evaluations of the Associations. This would be a difficult task for an outsider, untrained in SWC engineering, non fluent in Criolo, and unaware of the swirling social and political undercurrents.

Jose Vera-Cruz works as needed as a local engineering consultant to develop watershed development plans, and to assist DGASP and ACIDI/VOCA in the preparation and review of engineering designs and contract cost estimates.

ACIDI/VOCA local staff are all hired on six month renewable contracts. Staff are given performance reviews every six months. Brief weekly staff meetings are used as forums for updating everyone else about the past weeks activities and to quickly assign unforeseen tasks. The Monetization Manager meets weekly with key GOCV counterparts as well as the U.S. Ambassador. The filing system is well organized and the evaluators found it quite easy to locate and obtain most any type of report or information requested. This is a well led, well organized office by any standard.

3) Monitoring and Evaluation

The May 24, 1996 Cape Verde PL-480 Title II DAP identifies three program objectives:

Support water and soil conservation activities which will lead to a lessening in the degradation of the environment and provide alternatives in infrastructure which will permit higher agricultural productivity.

Introduce new technologies which conserve water and raise yields.

Execute a micro enterprise training and lending program and continue the Small Business Lending Program.

Meeting the goal of the program which is to increase the food security of vulnerable households is a function of accomplishing these objectives and the 11 tasks listed below.

The amount of financial information and intervention output information compiled into spreadsheets quantifying progress to date in accomplishing these objectives under this program is an embarrassment of riches. Most all pertinent information is consolidated into the FY Annual

Results Reports, Interim Progress Reports, and FY Previously Approved Activity Reports. The ACIDI/VOCA Monitoring and Evaluation Plan submitted to AID on June 30, 1997 lists 14 annual indicator measurements and 24 impact indicators which are used to measure the level of activity, output, and impact, where measurable, associated with each program intervention. Program interventions are:

- 1) sell commodity
- 2) promote and support associations
- 3) construct check dams
- 4) construct contour rock wall terraces
- 5) plant contour vegetative barriers
- 6) plant trees
- 7) provide employment
- 8) support the economic well-being of women
- 9) support adoption of drip irrigation systems
- 10) provide loans to micro enterprises
- 11) provide loans to small business enterprises

See **Appendix v** entitled "Annual Monitoring Indicators - Annual Targets"

In addition to quantifying these 11 tasks into a variety of indicator tables and spreadsheets, the program produces a number of interim and annual reports for each major activity providing an on-going narrative.

The FAO/DGASP Drip Irrigation Project, the Micro Enterprise Training and Lending Program, and DGASP all provide periodic progress and financial reports. All this information is compiled again into ACIDI/VOCA interim and Annual Results Report.

The FAO/DGASP financial report for the drip irrigation grant is in the standard FAO financial reporting format.

The Micro Lending Program produces quarterly reports outlining progress to date, program features, training program description, loan and operational statistics, statement of operations, sources and uses of funds, balance sheet, and client impact analysis.

The Caixa Economica de Cabo Verde (CECV) provides periodic reports for the Small Business Lending Program. ACIDI/VOCA receives the annual audit reports of the CECV. This report provides a lot of interesting information. ACIDI/VOCA's capital contribution to the Caixa (\$261,620 in FY 1997 and \$216,250 in FY 1998) is accounted for as a reserve. Bad loans are provisioned for at 6 % of total loans outstanding and the Caixa made a profit of 143,000,000 CVE (approx \$1,600,000) in 1997.

DGASP provides monthly financial reports to ACDI/VOCA which is used to track and double check the financial control documents prepared by the Associations and OASIS for SWC contracts.

INIDA has an agreement with ACDI/VOCA for approximately \$137,000 to conduct research from FY 1998 - FY 2000 in 1) forage crop production in marginal corn areas, 2) fertilization of common potatoes, 3) pigeon pea eco-types and adaptations, and 4) rain-fed corn and bean production. This research is still on-going, and results are unpublished. ACDI/VOCA has both program interest in this work as the client, and a technical interest, particularly in how this research can be applied by farmers to increase yields.

ACDI/VOCA has also contracted INIDA to carry out three very important studies particularly relevant for evaluating this program. INIDA was contracted for and later published two rural household income and nutrition surveys with particular emphasis on determining the effects of Association membership on per capita and household income, number of meals eaten, dietary diversity and perception of responsibilities and benefits of Association membership.

INIDA was also contracted to conduct crop cut surveys to help quantify the effects of SWC interventions on treated and untreated slopes, and to evaluate the economic returns of drip irrigation systems. The crop cut survey conducted by Elisa Soares in 1997 was recently published. According to the study contour rock wall terraces are particularly effective in arid zones accounting for an increase of corn yield from approximately 1 bu / acre (65 kg/ha) on bare slopes to 5.5 bu / acre (353 kg/ha) behind terraces. In comparison average U.S. corn yields are approximately 125 bu/acre (7.85 mt / ha) The drip irrigation study is incomplete and results for the 1998 crop cut survey are not yet available. There wasn't much to measure because of drought.

B. OBJECTIVE # 1: SUPPORT SOIL AND WATER CONSERVATION ACTIVITIES THROUGH WATERSHED ASSOCIATIONS.

The watershed Association movement grew out of the realization that traditional FAIMO's were becoming increasingly unproductive and that communities, given the chance and training, were capable of organizing themselves to construct SWC public works if an appropriate contracting mechanism was established. Not only were community associations capable of building contour rock wall terraces, check dams, and canals cheaper and better than FAIMOs, they were able to do it and make a profit.

For example, in 1998, over 2000 people employed by 41 Associations and Prospective Associations constructed over 123 km of rock wall terrace, built 164 check dams, and planted 81,510 trees. Per-capita income of female headed households with a member working on an Associations increased from \$154 / year to \$232 / year.

See Annual Results Report for Association and INERF unit cost comparison for typical SWC

public works.

See **Appendix v** for annual monitoring indicator spreadsheet.

In FY 1998 ACDIz/VOCA contracted exclusively through watershed Associations and Prospective Associations for soil and water conservation measures (\$1,557,096) and tree planting (\$213,655). The current plan is to continue contracting most all future SWC public works through Associations and Prospective Associations until the end of the program. (Note: The program is considering private contracting on a pilot basis). INERF, the independent government agency for executing rural engineering works and tree planting, was last awarded contracts by ACDI/VOCA in FY 1997 for approximately \$390,000. Associations in FY 1997 were awarded contracts for \$1,027,274.

The GOCV plans to privatize INERF in early 1999. With private capital backing INERF would be reorganized to bid competitively on large civil engineering and construction contracts. INERF's large inventory of pick ups, dump trucks, excavators, compressors, bulldozers, and spare parts, largely purchased under previous AID and other donor programs, could make it an attractive investment depending on the valuation of these assets.

For a variety of good reasons, the principal one being that there had to be a better way for ACDI/VOCA to contract for SWC public works rather than through FAIMO's hired by INERF, sixteen watershed Associations were organized in FY 1996 and were awarded contracts for \$703,269. INERF was awarded contracts for \$440,913 the same year.

In principle, Associations are supposed to develop, in a participatory manner, work plans for the coming work season, and present them to DGASP and ACDI/VOCA for review. DGASP and ACDI/VOCA consulting engineers then prepare the technical specifications and the final cost estimates for SWC public works proposed for contract. Simple spreadsheets are used to estimate the volume and cost of each proposed check dam and to cost out all proposed works on a unit cost basis. Contour rock wall terraces are contracted at 350 CVE / linear meter (\$3.76 / linear meter) and its not uncommon for an Association to contract for 6000 m/year). When the Association annual work plan is approved and each separate activity is costed out, contracts are signed and the Association receives a 20% advance to begin work. Works in progress are inspected monthly by DGASP technicians working at the Delegation level. DGASP inspectors fill out monthly authorization forms which tally quantity of work completed. This "auto" is signed by the Association President, the DGASP inspector, and the local Delegado. It is then sent to DGASP Praia and ACDI/VOCA for final approval and payment authorization. Associations are paid monthly on a unit contract completion basis less the 20% advance prorated as the work is completed.

The evaluation team met with the leaders and members of eight Associations, inspected a number of works contracted over the past year, and looked over the financial files. Time didn't

permit a systematic on-site evaluation of the Associations. Tom Gardiner conducted a much more thorough evaluation in August, 1998 of the twelve "new" Associations organized in 1997 and 1998. He found a few instances where Associations neglected to sign maintenance contracts with individual landowners where works were being constructed. Some members were unaware of OASIS role though it's commissioned by individual Associations to supervise and administer SWC contracts. Some members were unaware of the specific rights and responsibilities of Association membership. Gardiner found some Association leaders who did not take their training and community "consciousness-raising" responsibilities seriously enough. This is not at all surprising since many leaders themselves were not fully aware that they had a larger role to play in the Association than just being the construction foreman. It's not surprising that most people join Associations because of the employment opportunity rather than the other less important associated benefits. It's a lot to ask an Association member that he/she devote time and energy to group affiliation needs rather than the more basic need of making money to buy food. ACDI/VOCA and OASIS are planning additional training to Associations in participatory planning, membership rights and responsibilities, and the role of leadership.

DGASP headquarters in Praia and the Ministry of Agriculture technical staff at the Delegation/Conselho level have a critical role to play in supervising the technical aspects of contracted works. Contracted works must meet minimum specification and works in progress have to be inspected and measured every month by a GOCV technician. This measurement determines how much the Association will be paid at the end of the month.

Managers need to be mindful of the risks involved in contracting if inspectors fail to do their jobs conscientiously. If an inspector starts relying on the foreman's word that x amount of work was completed this past month rather than measuring the output personally the consequences are predictable. Moral hazard creeps into the system. At best quality goes down. At worst payments are made for phantom works, and people start skimming money. ACDI/VOCA and OASIS do spot check works in progress to make sure that contracts are executed according to plan and are aware of the potential for problems.

The evaluators had no way of knowing whether this goes on, but it's management job to anticipate problems before they arise.

DGASP's job under the program is to prepare watershed SWC plans, design and cost out measures to be contracted, inspect works, and authorize payment. They charge a fee of 5 % of the contract for these services. This is sometimes split equally between the headquarters in Praia and the Delegation. DGASP employs four engineers to manage all their programs, including the PL-480 program which takes about 40% of their time. The Director General has a strong rural extension background and is very supportive of the PL-480 Title II program and contracting Associations for SWC works. The PL-480 program neither has an engineer nor a forester assigned full time to the project. Jose Vera-Cruz, a very experienced local consulting engineer, is hired as needed to plan and help supervise rural engineering works.

A few months ago the President of Saltos Association stole 1,500,000 CVE and fled to Portugal after OASIS and ACDI/VOCA's accountant discovered some irregularities. The case was turned over to the Judicial Police to investigate. OASIS should investigate whether the bank will reimburse the Association if it's discovered that they had accepted and cashed a forged check or there was some other bank irregularity.

C. OBJECTIVE #2: INTRODUCE NEW TECHNOLOGIES WHICH CONSERVE WATER AND RAISE YIELDS.

ACDI/VOCA is investing approximately \$300,000 / year of PL-480 funds on drip irrigation as the best technological solution for increasing vegetable crop production in Cape Verde. The program is financing two approaches to achieve this objective. The first approach (approximately \$250,000 / year) is a grant to FAO through a Recipient Agency Agreement to install drip irrigation demonstration plots on privately owned farm land and to encourage farmers to install their own systems through credit schemes. ACDI/VOCA second approach (approximately \$50,000 / year) is to do pretty much the same but on a smaller scale by hiring their own technician to encourage farmers to adopt this technology. The program had a bumpy start since the principle rural credit agency used to finance drip irrigation went out of business and there has been a shortage of T-Tape, flexible hose, filters, valves, and couplings.

Despite the difficulties, 21.8 hectares of irrigable land was equipped with drip irrigation equipment since FY 1995 - 7.1 hectares by ACDI/VOCA Direct and 14.7 by FAO.

See **Appendix iv**, ACDI/VOCA memorandum November 06, 1998 which is a table of sites, numbers of farmers, numbers of beneficiaries, and area under drip for the ACDI/VOCA Direct and FAO financed programs.

See **Appendix iii**, the Annual Receipts and Disbursements Spreadsheet for exact spending levels.

The timing of this consultancy was probably as good a time as any to evaluate drip irrigation at the farm level in Santiago. The past three years have been agricultural disasters. Corn yields were less than one bu/acre (63 kg/ha) this year and there is an acute shortage of irrigation water in many areas. There is a compelling need for farmers to conserve water. When water has to be rationed farmers either irrigate less land and pursue yield or apply less water and live with the losses. When water has to be rationed, farmers can readily see the advantages of drip irrigation over flood and furrow techniques.

Since 1996, 217 farmers have adopted drip irrigation on 103 sites. Most all these farmers received some sort of grant from the project whether it was T-Tape, rigid plastic tubing rigged with nozzles, filters, valves, couplings, flexible hose, or water tanks to install the systems. Many of the more successful farmers and their neighbors are either expanding area under drip or buying into it. This is especially true in areas where reservoirs are nearby and the hydraulic

regime is favorable (i.e. where water can be collected into a tank located above the irrigated site at an elevation head sufficient to drive the system without a pump and a motor). Pumps and motors are the bane of drip and flood irrigation in Cape Verde. They will not stay fixed. Farmers can clean the filters, unclog the nozzles, couple hoses and valves, but have a hard time keeping a motor and pump running. Once it is up and running drip systems require much less labor than flood and furrow techniques.

The evaluators visited three drip irrigation demonstration sites where the systems were not working. A farmer in Picos was unable to pump water from a deep well 40 meters up into a reservoir. Since his pump was broken and he had no other way of filling the reservoir he had no way of irrigating either his drip plots or his flood plots. All of his crops were severely stressed.

Another farmer near by had laid out his pipes on land with a nematode problem and his cabbage, squash, and tomatoes were stunted. Another farmer in Ribeira Seca, the lucky recipient of a demo plot, had ½ ha of peppers and papaya under drip and was running out of well water just a few weeks after the "rainy season".. If any of these farmers had borrowed money for the full cost for these drip systems they would be facing ruin. Fortunately they were demos.

One exceptionally good site in San Francisco was an ACIDI/VOCA Direct drip system installed by a farmer using credit supplied by ACIDI/VOCA Direct drip funds. The water supply was classic Cape Verdean - water from a captation dam is carried by canal to a concrete reservoir located 30-40 meters above an irrigable plot of land. planted in sugar cane to make grog. This farmer however was using about 100 meters of flexible hose to carry the water by gravity, through a filter, into the porous T-Tape to grow cabbage. After selling the cabbage he plans to replace the flood irrigated sugar cane with drip irrigated carrots and tomatoes.

ACIDI/VOCA recently received a letter from a commercial firm announcing that had just received a shipment of drip irrigation equipment. This firm had previously approached ACIDI/VOCA for a loan to buy the equipment. ACIDI/VOCA was unable to respond since they do not have a facility for this type of loan. The firm bought the equipment nonetheless which is an encouraging development. The evaluators saw a farmer returning from Assomada with 50 meter role of 50mm flexible hose which cost about a \$1/meter. He planned to use this hose to expand his own drip system. ACIDI/VOCA is already buying drip irrigation equipment locally and is insisting FAO do the same the next phase of the drip irrigation grant agreement. Purchasing equipment locally will encourage local firms to keep drip irrigation equipment and spares in stock.

D. OBJECTIVE #3: MICRO ENTERPRISE AND SMALL BUSINESS PROMOTION.

ACIDI/VOCA has made a very impressive start towards achieving this objective through the Micro Enterprise Training and Lending Program managed by ACIDI/VOCA (\$165,422 in FY 98) and the Small Business Lending Program (\$214,963 in FY 1998) managed by the CECV under a

Recipient Agency Agreement. ACDI/VOCA has earmarked \$164,505 of seed capital in FY 1999 for the Instituto de Apoio ao Desenvolvimento Empresarial (Institute for the Development of Enterprises).

In addition ACDI/VOCA has provided \$228,681 in grants to the Cape Verdean Solidarity Institute since 1996 to train carpenters, plumbers, electricians, and construction workers. Grants to this program are being phased out. A final grant for approximately \$25,000 will be provided in FY 1999. Austrian aid will continue to provide support for the institute.

The program is planning to set up a drip irrigation loan facility managed by CECV through a \$200,000 two year capital contribution grant. The Associations are trying to establish a micro credit facility called the Caixa Poupanca Credito using profits sitting in non-interest bearing bank accounts as contributing capital.

See **Appendix iii** for actual disbursements by program from FY 1997 - FY 1998, projected FY 1999 - FY 2001 disbursements by program, and projected LOP FY 1997 - FY 2001 disbursements.

The Micro Enterprise Training and Lending Program was started in August, 1997 after ACDI/VOCA and the Caixa Economica de Cable Verde (CECV) signed a Recipient Agency Agreement. To qualify for a loan, borrowers must organize into a group of 5 and pledge to co-sign each others notes. A loan officer prepares an income statement for each borrower and estimates the cash flow of the borrowing activity. First time customers can borrow up to 25,000 CVE (approx \$250) or \$1250 for the group. Borrowers pay interest of 1.17 % / month and a 6 % on principle loan fee paid before the disbursement. Borrowers must open a savings account in the CECV and contribute 8 % of the loan amount which may be used to pay installments if payments are not made in time. Most all these loans are provided to female traders as operating capital to buy and sell fish, eggs, vegetables, fruit, clothes, batteries, soap, cosmetics, etc. Thirteen months after opening shop, four officers were managing \$225,000 in loans outstanding. By September, 1998 1175 loans for \$415,000 had been disbursed. The on-time repayment rate stood at 99.2 %. Loan officers receive a 2 % bonus on the principle at repayment, if and only if, every installment is paid on time. This bonus system based on loan repayment rather than loan disbursement contributes significantly to the high on-time repayment rate.

What distinguishes the METLP from other micro lending programs is the passionate belief that survival and success in this business depends on very high loan repayment.

The Program Monetization Manager has estimated, using an Adjusted Statement of Operations Analysis, that the Micro Lending Program would return a profit in 1999 assuming: 1) 7,000,000 CVE base capital, 2) 1,000,000 CVE cash on hand, 3) program borrowing costs of 18 %, 4) 3 % monthly lending rate , 5) 4 % loan fee, 6) 2 % provision for bad loans, 7) an average accruing loan balance of approximately 38,000,000 CVE and 8) 160,000 CVE / month for outside

management and accounting services. This analysis tests the assumption that if short-term financial sustainability is a program objective, revenues flows have to be increased. To attain sustainability, interest rates need to be increased from 1.17 % to 3 %. Front end cost to the borrower can also be reduced by lowering the loan fee from 6 % to 4 %.

Interest rates will have to be raised if this program continues to grow and has to rely on locally borrowed funds rather than PL-480 capital injections.

The original intention of the program was to charge a monthly interest rate of 3 % and a loan fee of 4 %. The GOCV, however, mandated that the current levels be used for one year, at which time ACDI/VOCA could reassess its needs and make any changes necessary. ACDI/VOCA has programmed these changes to begin in January 1999.

The Small Business Lending Program is managed directly by the CECV and focuses on a different market than the Micro Lending Program. Most loans are for less than 1,000,000 CVE (approx \$10,000) but larger than the average micro loan of 35,000 CVE (\$350). Loans for less than 12 months charge 13 % interest, loans for more than 12 months charge 14 % interest. ACDI/VOCA provided \$477,869 in capital funding for CECV's Small Business Lending Program for FY 1997-FY 1998 and plans a final capital contribution of \$440,484 in FY 1999. This money is credited on the CECV balance sheet as a reserve. The CECV made approximately \$1,500,000 in 1997 and estimates profits of approximately \$2,000,000 in 1998. Bad loans were provisioned at 6 % in 1997.

These small business loans provide short-term operating capital for female commercial traders dealing in fruits, vegetables, fish, clothes, shoes, cosmetics, canned goods, baked goods, and crafts and to establish small businesses such as bars, restaurants, and boutiques. The customer base for both the Small Business Lending Program and the Micro Lending Program is decidedly female.

The program is planning a three year \$517,000 capitalization of the Instituto de Apoio ao Desenvolvimento Empresarial Investment Fund. During the same period Holland, Luxembourg, and the European Union plan to inject approximately \$1,200,000 into the program. This program will target businesses with larger capital needs than the Micro Credit and Small Business Lending Programs. ACDI/VOCA will stipulate in the Recipient Agency Agreement that PL-480 funds are to be used to capitalize loans for less than 2,000,000 CVE (approx \$20,000).

ACDI/VOCA is investing capital into three different types of credit institutions each targeting a different customer base. The Micro Enterprise Training and Lending Program is directly managed by ACDI/VOCA and provides credit to a seriously underserved market. ACDI/VOCA has a competitive advantage at the micro end of the credit scale. They employ highly motivated loan officers who are paid a bonus based on loan repayment rather than loan disbursements. Even Ose, the Monetization Manager, is a banker with years of experience at the micro end of the trade.

He has designed a program with tight protocols and is passionate about loan payments. When micro credit customers start requiring lines of credit greater than 25,000-100,000 CVE, the two sister programs will be there to provide larger loans.

VIII. Impact

A. BASELINE STUDY DATA

The direct socio economic impact of the soil and water conservation program does show a significant change over the one year of measurement (January 1997 – January 1998), which is unusual. There are many factors bearing on the data, including bad crop years in 1997 and 1998, methodology changes, changes in household size and remittances, etc. The findings show that female headed households (FHH) with members belonging to Associations increased household income by 40 percent over the year, while all households with members belonging to Associations increased 23 percent. The total sample – members and non-members of Associations – increased by the least amount, 11 percent. (These increases are not reduced by the rate of inflation estimated at about eight percent in recent years.)

The data also show that the program is targeted appropriately on the poorest elements of Cape Verdean rural society, since FHH, despite greater gains in household income, remain the poorest members of the community. The amount of household income derived from SWC activities is crucial to sustaining or augmenting overall family income. There is a general upward trend in the percentage of household income derived from work on SWC activities.

With respect to Food Security indicators, the apparent decline in number of meals eaten per day and dietary diversity scores in 1998 appear to be related to different collection dates for nutrition and food consumption patterns, i.e., April 1997 and January 1998. By April, virtually all harvesting is over, SWC activities are in full swing and pay is coming in. In January, the last payments were probably received in the previous September.

The perception of Association benefits comparison shows comparable results with this exception; in 1998, data for all households with at least one member working for Associations and female headed households both put a six day work week among the top five benefits of Association work. The predominant attention to practical benefits vs. low prevalence of social service benefits is probably very sound at this point. However, examination of all, rather than the top five perceptions of benefits, shows that certain social and skills development benefits, while low, are increasing significantly.

Regarding perceptions of responsibilities and/or obligations of Association membership, these are pretty consistent over the year and by sample group. Avoiding politics seems to be recognized across all sampled groups and over time with frequency of mention running from 26 to 45 percent, so this message has apparently been absorbed. This is an achievement given the lively multi-party democracy in Cape Verde and the risk of pork barrel considerations prevailing over sound technical/economic definitions of work needed.

Comparisons of Environmental Benefits show little change over time or by sample group. The

consultants noticed, however, that compared with their experience in the late 1980s and early 90s, popular appreciation of pigeon pea planting has increased significantly.

The discussion above is based on a the Tables (following pages) drawn from the baseline data report of July 1997 and the "One Year Later" socio economic survey report of July 1998.* These reports listed in the Bibliography, provide more data than presented in the Table and are to be continued, by or through INIDA, in 1999 and 2,001, the last year of the program.

After discussions with the principal researchers, we decided to use household income (HH) vs. per capita income data, due to possible changes in the number of members per household and the fact that households are the predominant economic unit in rural Cape Verde. To compare Table data to ACDI's performance indicator tracking system based on per capita income, household income can be divided by approximately six. (See following Tables)¹

¹ The 1998 data from this survey report has not yet been analyzed by ACDI.

IMPACT SUMMARY TABLE

I. Household Income and Source Comparisons

		1997	1998	% Change
1. Total sample		316 HH	317 HH	
	HH Income	118,239 CVE	131,555	11%
	% of Income from SWC work fronts	14.6%	28%	
Sample HH w/NLT 1 member working on Assoc. Front (% of Total)		<u>153</u> HH 317 (48%)	<u>210</u> HH 317 (66%)	
	HH Income	103,925 CVE	127,369 CVE	23%
	% from Association Fronts	34.2%	43.7%	
Sample FHH w/NLT 1 Member working on Assoc. Fronts (% of Total)		<u>86</u> FHH 153 HH (56%)	<u>108</u> FHH 210 HH (51%)	
	FHH Income	78,262 CVE	109,682 CVE	40%
	% from Assoc. Fronts	36.9%	41%	

NLT- Not less than

HH - Household

FHH Female Headed Household

Note: Selected indicators are drawn from INIDA contract surveys published in July following the data collection. The 1997 data has been reworked by ACDI staff.

IMPACT SUMMARY TABLE

II. Number of Meals and Diversity Comparisons

	1997	1998
Total Sample	316 HH	317 HH
Avg. No. of Meals/day	2.94	2.85
Avg. Dietary Diversity Score	5.57	4.54
Sample HH w/NLT 1 member working on Assoc. Front	<u>153</u> HH 316 HH	<u>210</u> HH 317 HH
Avg. No. of Meals/day	2.93	2.84
Avg. Dietary Diversity Score	5.35	4.31
Sample FHH w/NLT 1 Member working on Assoc. Fronts	<u>86</u> FHH 153 HH	<u>108</u> FHH 210 HH
Avg. No. of Meals/day	2.90	2.85
Avg. Dietary Diversity Score	5.23	4.25

Note: It should be noted in the table that the 1997 study was completed in April of that year and the follow-up study conducted in January, 1998.

IMPACT SUMMARY TABLE

III. Perceptions of Benefits of Associations

	1997		1998	
Total Sample	322 HH		317 HH	
Top 5 Benefits Perceived (% of respondents)	Employment	88%	Employment	73%
	Improve area	53%	On-time payment	64%
	On-time payment	52%	Work near home	50%
	Work near home	42%	6 Day work week	49%
	SWC works on land	35%	Improve area	46%
Sample HH w/NLT 1 member working on Assoc. Front	<u>148</u> HH 322 HH		<u>182</u> HH 317 HH	
Top 5 Benefits Perceived (% of respondents)	Employment	97%	Employment	97%
	On-time payment	62%	On-time payment	91%
	Improve area	61%	Work near home	67%
	Work near home	53%	6 Day work week	67%
	SWC works on land	41%	Improve area	58%
Sample FHH (a)	<u>161</u> FHH 322 HH		<u>158</u> FHH 317 HH	
Top 5 Benefits Perceived (% of respondents)	Employment	88%	Employment	74%
	On-time payment	55%	On-time payment	65%
	Improve area	51%	6 Day work week	51%
	Work near home	44%	Work near home	43%
	SWC works on land	31%	Improve area	39%

(a) Due to the lack in the 1997 baseline study of a sample for FHH w/NLT 1 member/family working in Association fronts, section 3 of Tables III, IV and V do not compare the households described in the other tables.

IMPACT SUMMARY TABLE

IV. Perceptions of Responsibilities/Obligations of Association Membership/All

	1997	1998
Total Sample	322 HH	317 HH
Top 5 Responsibilities Perceived	Guarantee productivity 53% Quality of construction 51% Avoid politics 26% Fees and dues 18% On-time payment 12%	Quality of Construction 63% Guarantee Productivity 62% Avoid politics 33% On time payment 32% Contract w/DGASP 32%
Sample HH w/NLT 1 member working on Assoc. Front	148 HH 322 HH	182 HH 317 HH
Top 5 Responsibilities Perceived	Guarantee productivity 67% Quality of construction 67% Avoid politics 35% Fees and dues 35% Equal dist. of profits 18%	Quality of construction 86% Guarantee productivity 84% Contract w/DGASP 50% On-time payment 50% Equal dist. of profits 47%
Sample FHH (a)	92 FHH 184 HH	162 FHH 317 HH
Top 5 Responsibilities Perceived	Guarantee productivity 49% Quality of construction 47% Avoid politics 25% Fees and dues 19% On-time payment 11%	Guarantee productivity 60% Quality of construction 60% Contract w/DGASP 33% Avoid politics 30% On-time payment 29%

(a) See note on previous page.

IMPACT SUMMARY TABLE

V. Perception of Environmental Benefits

	1997	1998
Total Sample	184 HH	317 HH
Top 5 Activities Benefitting Environment	Tree Planting 98% CRWT 97% Pigeon peas 96% Dikes 94% Live hedge lining drainage channels 67%	CRWT 98% Dikes 98% Tree planting 98% Pigeon peas 88% Live hedge lining drainage channels 73%
Sample HH w/NLT 1 member working on Assoc. Front	<u>96</u> HH 184 HH	<u>182</u> HH 317 HH
Top 5 Activities Benefitting Environment	Tree planting 99% CRWT 99% Dikes 99% Pigeon peas 97% Live hedge lining drainage channels 74%	CRWT 98% Dikes 98% Tree planting 98% Pigeon peas 85% Live hedge lining drainage channels 72%
Sample FHH (a)	<u>92</u> FHH 184 HH	<u>162</u> FHH 317 HH
Top 5 Activities Benefitting Environment	Tree planting 99% Pigeon peas 97% CRWT 96% Dikes 90% Live hedge lining drainage channels 70%	CRWT 99% Tree planting 98% Dikes 98% Pigeon peas 86% Live hedge lining drainage channels 74%

(a) See note on Table III.

B. INSTITUTIONAL IMPACTS

1) Associations

The major contribution of the program to institutional development is expanding the number and competence of rural Associations. This is key to the sustainable increase in soil and water conservation measures, their maintenance, and empowerment and democratic processes taking root at the lowest levels in Cape Verdean rural society. This builds on much related prior experience and has, still, certain weaknesses.

The August 1998 Thomas Gardiner Evaluation clearly identifies the improvements needed for the “new Associations,” those not legalized and eligible for direct contracting with DGASP. The evaluation team believes that this report, based on standardized interview and scoring methods reflects the Associations’ status accurately. It also reflects the field operator’s bias, i.e., concentrating on the problems that need to be addressed and failing to fully appreciate the impressive progress that has been made. Their growth – 24 to 31 – and particularly the increases in the value of their contracts from \$US 960,000 in 1997 to about \$US 1,560,000 in 1998 reflects the value placed on these institutions as the primary vehicle for effective, efficient rural works operations. They have the potential for sustained growth, sponsorship of income generating activities and, down the road, social development within their communities.

Virtually all people interviewed by the evaluation team expressed the view that Associations are the best approach to rural employment, empowerment and productive SWC work. Virtually all also cited the need to improve their management capacity and engage them in support to income generating activities. The fact that they primarily appeal to members on bread and butter issues is not a fault. If they failed in this, few other benefits would develop downstream.

2) OASIS

OASIS, the Organization of Associations of Farmers and Herders of Santiago Island, is the Association membership organization which guides and supports the Associations and intermediates between Associations and their partners, DGASP, the Delegations and ACDI/VOCA. It is a primary means to develop the Associations and is itself in need of further development and strengthening. Its current strength is based on two key staff, Humberto Batalha “Lopi” Lopes, the CEO and member of one of the constituent Associations, and Bernardino “Berna” Lopes Afonso, the defacto promoter and extension agent extraordinaire. Lopi continues to be on the DGASP payroll and often works seven days a week. They are the organization at this point and get substantial assistance from ACDI/VOCA. They have a staff accountant and OASIS General Assembly officers (currently a woman, formerly a CO, in lieu of the former Saltos Association President) who represent the legislative element of OASIS.

OASIS has good standing and respect with Association members and collaborating DGASP staff. It is less well known to Praia officials or the general public. Its revenues come from a three percent deduction from the value of Association SWC contracts with minor subsidies, e.g.,

Lopi's salary. OASIS is an integral, respected and capable organization in the whole process, and Fogo Associations would like to form a similar organization. Its functions and staff should be expanded to meet the associations' objectives and needs.

3) DGASP (Director General for Agriculture, Forestry and Animal Husbandry)

DGASP is the primary GOCV partner to ACIDI/VOCA in program objective number 1, support to SWC activities through farmer Associations. It receives a grant of five percent of the value of the Association SWC contracts to support the program. It shares this, sometimes but probably not enough, with the Ministry of Agriculture Delegations in the Districts.

The leadership, Director General Joao Fonseca and staff in the Rural Engineering Division appear to be fully behind the program. ACIDI/VOCA has involved DGASP in all pertinent training programs from drip irrigation in Israel to rural engineering technical training, to techniques improving collaboration with Associations. The Directorate General is short staffed. This is particularly true of the Rural Engineering Division which has five staff members with one due to leave. Because of economic reform measures, no growth in staffing is foreseen. The problem is not just budget, but the availability of qualified people.

A planning commission is to be established in DGASP which will include all Divisions in 1999. The Ministry Studies and Planning Cabinet (GEP) asserts that they need to do better organization and simply "work harder." While a better, more consistent and coordinated (the Delegations and Sao Filipe Headquarters) approach would be welcome, ACIDI/VOCA has to consider other approaches and solutions to monitoring completion of SWC work to specifications, spot checking works in progress, training and technical assistance. DGASP's participation may need to be redefined, simplified and clarified regarding the responsibilities of the Headquarters versus the District Delegations.

Given the potential risks of contracting Association to construct SWC works without strict supervision and inspection at the Delegation level, DGASP must insure that the Delegations fulfill their obligations. DGASP should promptly pay Delegations their 2 ½ % contract commission share. DGASP Headquarters and the Delegations must work together to ensure that Associations are paid promptly for completed works.

4) Lending Institutions

Two institutions are being developed/redeveloped but are not yet open for business. ACIDI/VOCA learned recently that the GOCV intends to approve the OASIS-based credit union, Caixa de Poupanca y Credito (CPC) on or about December 31, 1998. The IADE (Institute for the Development of Enterprises) was approved by the GOCV on April 7, 1998. It's restructuring and management plan, transforming it into the SDE (Entrepreneur Development Company) is progressing, and other donor participation is assured. ACIDI/VOCA, which had a hand in designing the new structure, cannot participate in SDE's Investment Fund until USAID approval is received. The approval was requested in April 1998, and various exchanges on the subject

have occurred since.

The major emphasis, then, has been on two programs managed or covered by the CECV (Caixa Economica do Cabo Verde) a former savings and loan and postal savings institution transformed into a universal bank in 1991. Its market share is the lower end compared with lending practices of the Banco Commercial do Atlantico and two Portuguese banks now in Cape Verde.

CECV audits are clean, leadership is aggressive (anticipating ultimately, expansion to all islands) and competent, and they believe their modern systems and good service permit them to compete successfully.

The program has expanded CECV's range and volume of services, e.g., 179 small loans provided and 1,175 micro enterprise loans provided through September 1998. The micro enterprise loans are actually processed and collected by an ACDI sub-unit, the METLP operating under the legal authority of the CECV. The 1,175 loans were provided in the amount of U.S. \$415,000. The average loan size is \$354, and repayment rates are close to 100 percent. Clients are overwhelmingly women petty traders. CECV is thus the most experienced formal lending institution in micro enterprise and the likely legal authority for micro enterprise programs being developed by Cape Verdean NGOs. They have participated in all the relevant workshops and training exercises for the METLP.

They run the small business lending program with initial technical assistance and follow-up from ACDI/VOCA. Capital grants for this program and training funds (about \$32,000) have made CECV the premier small loan lender in Cape Verde as well as the one most familiar with micro enterprise lending. Both programs could – with certain increases in lending rates and including the cost of borrowed capital – be self sustaining in 1999. Despite the proven advantages of collaboration with CECV, ACDI/VOCA is prudent in developing other small and micro lending partners, because CECV's plate is rather full, and other market niches, geographical or loan range, need coverage and the competition is healthy.

C. SPECIFIC ACTIVITY IMPACTS

The Indicator Performance Trading Table (See **appendix v**) represents the most recent data available for the 11 annual monitoring indicators consistent with the "List and Description of PL-480 Title II Generic Performance Indicators for Development Activities" and fulfills a requirement in the ACDI/VOCA (Revised) Monitoring and Evaluation Plan presented on June 30, 1997 in response to a USAID request of September 11, 1996.

ACDI/VOCA has fulfilled this requirement (in the evaluation team's view, excessive) through a splendid effort which risks diverting management time from on-the-ground oversight and pro-active measures to enhance performance. This is an improvement over the earlier years (late 1980s/early 90s) when there was little systematic collection of impact data (household income, production gains, soil loss reduction from SWC works, nutritional status, etc.) Output has always been measured, but impact measures are still elusive.

D. MEETING OBJECTIVES IN FOOD SECURITY, GENDER, DEMOCRATIZATION AND ENVIRONMENT

1) Food Security

The FFP Title II monetization program provides the major contribution to Cape Verdean food security. The delivery of 22,700 MT of grain (about US\$5,000,000) over the first two years of the program contributes about 14 percent toward Cape Verde's annual food requirement and 25 percent of the total food aid contribution toward that requirement. It has been argued consistently that Cape Verde has a structural food deficit and will never achieve food self sufficiency until export earnings are sufficient to purchase its food needs commercially. This remains the case.

The commodity of choice, number two yellow corn, was limited to 13 percent of U.S. food imports to date, because of its removal from the USDA/CCC food aid for three years. Rice and wheat which replaced the corn are consumed largely by urban customers, so the major impact on the rural poor now is employment on SWC work fronts. The program employs about 2,000 people per year working four person/months/year, which provides money to buy the food distributed through commercial networks throughout the islands.

Access to food depends on income, and those employed on this program spend close to 60 percent of their income on food. Thus program food aid contributes at the macro level to lessening the structural food deficit and reducing the balance of payments deficit and its consequence, inflation, which hits the poor the hardest. At the local level, employment in SWC works provides basic subsistence incomes to the poorest households in rural areas and improves the limited productive base for non-staple food.

2) Gender

The program proposal (DAP) of May 22, 1999 clearly addresses the improvement of the status of women through its several elements. The majority of rural households, and the poorest, are headed by females due to the long-standing emigration phenomenon. Petty trade is almost entirely in the hands of women. These radibantes are collectively the major distribution networks for fruit and vegetables, fish, meat and eggs, transformed food products (bread, couscous, cookies) and a broad mix of imported and local products in Cape Verde.

The Associations generally understand their obligation to employ the poorest members and other workers in the community, and to pay particular attention to women's needs. This is consistent with overall GOCV policy which encourages favoring women to compensate for the prevalent social mores which do not. The 1997 ARR reports that 798 out of 1,509 (53 %) Association members are women (based on 18 Associations). Preliminary figures for 1998, and based on 24 Associations, are 1,080 out of 1,943 (56 %) members are women. This is consistent with the population of rural Cape Verde in which female headed households predominate.

The advancement of women to higher paying jobs from unskilled workers to, for example, masons amounts to a 45 percent increase in daily pay (to the magnificent sum of US\$4.25 per day). Eight Associations report that 69 percent of skilled workers working on CRWTs are women. In a Fogo Association, 13 of 14 masons are women. The 1997 data indicates that forestry program workers are 65 percent female. Women are assuming increasing importance in Association leadership. Out of 32 legal Associations, two had female Presidents and 13 had female accountants by 1998.

The micro enterprise program (METLP) operates almost exclusively to the direct benefit of women. The program is so soundly structured with extensive training and follow-up that loan officers monitor such measures as the household income of borrowers before (35,877 CVE) and after (47,772 CVE) loans are repaid, reflecting a 33 percent increase. ACIDI/VOCA has calculated using very conservative factors that with an acceptable increase in interest rates of three percent per month, the program could be self sufficient by late 1999. As the loan office deals primarily with Praia area borrowers, ACIDI/VOCA is seeking support for opening another branch in Assomada or Mindelo.

The small loan program does not target women borrowers to the same extent as the METLP. Nonetheless, 49 percent of the borrowers are women, and they have 40 percent of the value of the loan portfolio (some US\$ 204,468). The program's approach is sound. Results are better than projected, and women's interests are being served. A woman ACIDI/VOCA staff member is making it her area of special concern so that the effort will be sustained.

3) Democratization

The major impact in the program is through the development and expansion of rural Associations, 31 of which have legal status and 12 of which are pending full status. Their statutes provide for an Administrative Council, a Financial Review and Quality Control Council (conselho fiscal) and the General Assembly. While General Assembly membership is inherent in their entering the Association, they elect their own officers, President, Vice President and Secretary. The President of the General Assembly organizes the election of the Administrative Council (executive function) and the conselho fiscal (watchdog function).

The statutes for each Association are published in GOCV's official Bulletin, which constitutes its legal existence. It is likely that not all members nor even all officers fully comprehend their duties and rights, and so a continuing training cycle is established to address this weakness. It is clear that when members are not satisfied with their officers, elections are called. In one case, two elections for the Administrative Council were called within a matter of months in Saltos.

The democratic processes are bound to be colored by the structure of rural society. Age, wealth and social standing are respected, and those possessing these qualities may dominate the membership. However, Association membership is generally young (more so in Santiago than Fogo) and female, so the risk of this kind of influence may be lessening. As long as the program emphasizes Associations, which it does, it is contributing to the enhancement of democracy at

the rural base of Cape Verde. The money in the hands of the mostly democratic Associations strengthens this trend.

4) The Environment

The primary objectives of the program are directed to reducing the degradation of the natural resource base due to population pressure and inappropriate agricultural practices, mostly dry land farming on the slopes. Many of the destructive practices are driven by poverty and the absence of alternatives. In the long run, people must find off-farm employment and income sources, and concentrate agriculture on the limited area of good sites.

In the meantime, work on soil and water conservation activities limits damage, contributes in increases in productivity and provides the employment needed for subsistence until other options are developed. The positive impacts of the program are estimated in the Indicator Performance Tracking Table in **Appendix vi**. These include recovered top soil, 86,733 cubic meters, reclaimed surface area for cultivation, 52 hectares and reduced soil erosion, 71 percent.

Any intervention has some negative side effects, and since inclusion of FFP Title II activities under "Reg 16" of Environmental Procedures in March 1977, all Title II program agencies were required to submit IEES (initial environmental examination). In compliance with this, ACDI/VOCA carried out an IEE in June 1998. Twenty-two activities were recommended for categorical exclusion. These include program administration, training and planning exercises for Associations and reforestation training, drip irrigation demonstrations, INIDA and other research and the credit programs. Twelve were recommended for negative determination with conditions. These include: nurseries, tree planting rock faced crescents, contour bunds, reforestation/ afforestation, check dams, CRWT, irrigation canals, captation dams, well improvements and irrigation water tanks. The major risks involved are soil erosion due to failure to meet technical specifications, surface disruption due to transport of materials, lack of related up-slope protection works, improper disposal of building materials and waste water drainage problems. Mitigation measures are basically good design and execution of works, an integrated approach to intervention on the slopes, and training and rigorous spot checks.

The remainder of the activities were classified as negative determination without conditions. The effect of this exercise was to take basically positive interventions and scrutinize them for negative impacts, sensitize all technical staff to harmful consequences of improperly done works and generally raise the consciousness of all partners in this program.

IX. Recommendations

A) PL-480 FOOD AID MONETIZATION, PROGRAM MANAGEMENT, AND MONITORING AND EVALUATION

1) PL-480 Food Aid Monetization

Assuming they are not removed from the CCC commodity docket ACDI/VOCA will continue to sell approximately \$3,128,000 of corn and wheat per year through FY 2001. Negotiated sales where the buyer takes possession of the commodity at the point of discharge is the most appropriate sales mechanism in our view. The futures price of corn and wheat grain (based on ETA Cape Verde of the proposed commodity), the basis at load port, and freight should continue to be the fulcrum price estimate used in negotiations. Sealed bid tenders and auctions are not the appropriate way to sell wheat grain and large quantities of corn in Cape Verde. MOAVE is the only conceivable buyer of wheat grain and when the corn market is opened to commercial importers the rules of the trade will severely limit the number of potential buyers. ACDI/VOCA should not be corralled into the role of receiver and wholesaler of corn, rice, beans, powdered milk or soybean oil and should not be deterred from negotiating a corn deal with a consortium of buyers.

The Monetization Manager should begin evaluating the various trade finance instruments offered by Cape Verdean and corresponding banks. If the Ministry of Finance quits guaranteeing payments by EMPA and MOAVE, buyers will have to start purchasing bank guarantees, or opening up confirmed letters of credit in the name of ACDI/VOCA.

2) Program Management

The soil and water conservation activities financed under PL-480 Title II have been successful because they employ people who really do things. It is not a talk shop, it does not make five year plans, and it's not about rearranging chairs at the Ministry of Agriculture. Two thousand people get up in the morning, go to the field and build things. The terraces, check dams, reservoirs, canals, and trees are the legacy of this program. Time spent in the field managing the people who have been given a tremendous amount of program responsibility is time well spent.

ACDI/VOCA staff and DGASP should spend more time in the field where the money is being spent and less time in the office counting the receipts. Monitoring and evaluation systems should focus on collecting and analyzing primary data. Extracting data from the social economic survey, putting it into another spreadsheet, and trying to fit it into an inelegant indicator table takes time better spent in the field. Reports and indicator tables are eventually discarded into the dustbin of history. It's better to keep it at the minimum required by AID and ACDI/VOCA headquarters.

The micro lending program is successful because the loan officers are making over 10 new loans a day, the program is growing, and on-time repayment is very high. Women are lining up outside the office just to get on the waiting list for loans ten months from now. Given the high demand for credit loan officers are able to screen out higher risk customers. Their bonus depends on it.

ACDI/VOCA should continue to train and groom new loan officers. When Associations start their own micro credit programs a cadre of loan officers will be in reserve to manage the program.

Money has been set aside in the 202 (e) budget to buy access to the Peace Corps/Embassy health unit for ACDI/VOCA's two expatriate employees. For some reason, and it is certainly not the availability of alternate health care in Cape Verde, ACDI/VOCA is not authorized to use this clinic. These employees need this coverage and AID should facilitate the authorization.

3) Monitoring and Evaluation

ACDI/VOCA has contracted INIDA to carry out social and economic impact studies, crop cut surveys, and a drip irrigation benefit/cost analysis.

INIDA is also a beneficiary of monetization proceeds through a Recipient Agency Agreement to conduct dry land research in: 1) forage crop production in marginal corn areas, 2) fertilization of common potatoes, 3) pigeon pea eco-types and adaptations, and 4) rain-fed corn and bean production. Three years of drought has severely constrained the collection of meaningful data for some of these research activities. ACDI/VOCA and INIDA should triage the dry lands research program and concentrate on the most promising subjects.

ACDI/VOCA should insist that contract studies be conducted in a timely manner and work with the principle investigator to make sure data is analyzed and presented in a format simple to understand and transferable to the indicator tables called for in the ACDI/VOCA PL-480 Title II Agreement. If studies and research reports continue to be submitted late ACDI/VOCA should hire reliable local consultants to do these jobs instead of INIDA.

ACDI/VOCA should hire someone directly or indirectly through OASIS to assist DGASP inspect works contracted by the Associations. Works have to be rigorously spot checked and field measured. DGASP receives 5 % of all PL-480 Association contracts in part to physically inspect and measure SWC works. If DGASP does not have the personnel or the motivation to do this ACDI/VOCA and /or OASIS should hire someone directly to help.

B. OBJECTIVE #1: SUPPORT SOIL AND WATER CONSERVATION ACTIVITIES THROUGH WATERSHED ASSOCIATIONS

The GOCV and the PL-480 Title II Program pins enormous responsibility and hope on community based watershed Associations. As FAIMO's fade out, donors and GOCV officials are banking on Associations to help pull poor Cape Verdeans out of poverty. This is a lot of weight to bear on new organizations led by men and women in their 20's who have had limited amounts of formal education and virtually no management training. The PL-480 Title II Program championed the formation of Associations, and plans to award Associations over \$6,000,000 in SWC public works contracts over the next three years (FY 1999 - FY 2001). OASIS will receive a 3 % fee on the Santiago contracts or \$126,000, and DGASP a 5 % fee or \$300,000 to

administer these contracts on behalf of the Associations and the GOCV. The money is there to provide better training for Associations and tighten up contract management.

The PL-480 Title II program has a competitive advantage, as a patron of Associations, in the ability to train the leadership and to establish the administrative protocols other potential donors and clients will follow in awarding poverty alleviating public works contracts. This is no time to let this advantage slip. Continuous in-service training of DGASP technical coordinators, community organizers, association administrators, bookkeepers, and construction foremen is crucial if the "poverty elimination through public works contracted to Associations model" survives.

Other major donor programs intend to follow, to the extent possible, the Association model by providing funds directly to the District Councils, to contract SWC works. For example, the Anti-Poverty Campaign will be putting a significant yet undetermined portion of their proposed \$10,000,000 five year budget into local organizations. The Anti - Desertification Campaign has a proposed budget of \$35,000,000 over the next five years. There is substantial double counting in both budgets and many "wish list" line items, but it is clear that a lot of donors have high hopes for Associations.

The following are a few recommendations for strengthening Associations and improve public works contracting. (Note that some of these actions are already in underway.)

- 1) ACDI/VOCA and/or OASIS should immediately hire extra staff to help DGASP inspect SWC works. DGASP technicians who inspect works contracted by Association should be required to keep dated and signed field note books containing all volumetric calculations for check dams, meters of contour wall constructed, number of trees planted, etc. for all works signed as complete in the "auto".
- 2) Delegations are entitled to their 2 ½ % share of DGASP's 5 % commission on Association public works contracts. ACDI/VOCA should insist that Delegations be paid their share so they can supervise and inspect contracted public works.
- 3) OASIS should consider hiring a General Manager who reports to the board appointed Operations Director. The General Manager would run the office, buy materials, and keep things running while the Operations Director is in the field supervising works in progress and making sure that Associations and DGASP are doing their jobs properly. The Operations Director should report to the General Manager.
- 4) OASIS should institute a quarterly scheduled in-service training curriculum and begin training trainers to expand the curriculum as needed. Oasis should consider hiring a permanent Training Coordinator.
- 5) ACDI/VOCA should hire a facilitator, organize a retreat for OASIS and begin thinking strategically about the future of the program.

6) The program should consider tendering through competitive sealed bids 1000 meters of contour rock wall terrace, 250 m³ of check dam, a 5 m³ reservoir, and 100 meters of canal as a pilot project to test the market for private contracting.

7) ACDI/VOCA should increase spot checks of Association financial records and receipts and provide additional bookkeeping and accounting guidance as needed.

C. OBJECTIVE #2: INTRODUCE NEW TECHNOLOGIES WHICH CONSERVE WATER AND RAISE YIELDS

1) To the extent possible the program should focus on installing drip irrigation systems on smaller plots in the more humid upper reaches of the watershed. These areas are more likely to offer a hydraulic regime where the elevation head of stored water is sufficient to drive a drip system without need of a pump and motor.

2) ACDI/VOCA should facilitate the training of more small motor and pump mechanics and plumbers. The program should encourage the establishment of welding and small engine repair shops, and agricultural supply/hardware stores. ACDI/VOCA should continue to support two planned drip irrigation credit facilities - one through the CECV capitalized by LC funds and the other through the planned Caixa Poupanca Credito capitalized by the Associations. The idea of backing a number of rural credit, micro lending, and small business loan facilities rather than just one or two is sound. It's just good business to spread your risks.

3) The ACDI/VOCA Direct and the FAO/DGASP drip irrigation projects should purchase (or continue purchasing) equipment indirectly through local vendors rather than directly from European manufacturers. This may cost more but local vendors need the business and the incentive to keep equipment and spare parts in stock.

4) FAO/DGASP should establish a modest petty cash fund for incidental expenses.

5) ACDI/VOCA should keep monitoring salinity levels at drip irrigation sites, particularly in arid zones near the coast where there's not enough fresh water or rain to leach salts out of the upper soil profile.

6) The program has developed an income balance sheet for drip irrigation using annual profit estimates supplied by FAO. The high price of vegetables in Cape Verde and the expectation that drip irrigated vegetables plots can produce 3-4 crops/year with yields 20% greater than flood irrigated crops makes for some very interesting net income estimates. The FAO annual profit estimate for drip irrigated vegetables in Cape Verde is \$20,000/hectare. With these margins you would expect farmers who have been given drip irrigation systems to be driving 4x4 pick ups. Instead they can't seem to find the money or the motivation to repair their water pumps. If it sounds too good to be true it probably is. ACDI/VOCA should use FAO drip irrigation income estimates with caution.

D. OBJECTIVE #3: MICRO ENTERPRISE AND SMALL BUSINESS PROMOTION

It's a bit bewildering at first getting a grasp on the various credit schemes and loan facilities supported by the PL-480 Title II program in Cape Verde but it all makes sense. It is good business to spread your risks and each facility targets a different customer base. As customer needs grow they will turn from higher interest micro credit to lower interest small business loans. Two credit facilities are up and running. Three others are planned. The first rural credit facility has closed.

The Micro Enterprise Training and Lending Program is up and running and heading towards profitability. The Small Business Lending Program managed by the CECV is in sound hands.

The PL-480 Title II Program plans to help capitalize the IADE small enterprise loan facility to complement the Small Business Loan Program in the CECV. The IADE facility will target customers with slightly larger capital needs. Two rural credit facilities are planned.

ACDI/VOCA is providing technical assistance for the Caixa Poupanca Credito a new micro credit facility capitalized out of profits earned by the watershed Associations. In addition PL 480 Title II program plans to provide additional capital to CECV to set up a small drip irrigation credit facility.

ACDI/VOCA started capitalizing rural credit facilities in September, 1997 with a 5,000,000 contribution to the Caixa Credito Rural. The CCR has stopped lending money and is only servicing 1,100,000 CVE in loans. The Ministry of Finance has given approval for CCR to return the balance 3,900,000 CVE to the PL-480 Program.

The planned Caixa Poupanca Credito capitalized by the Associations will require a lot of ACDI/VOCA technical assistance. The legal status of this proposed micro lending facility has been tied up in the Ministry of Justice for the past ten months. Whatever legality is tying up the incorporation of this credit facility needs to be traced and adjudicated. ACDI/VOCA should seek out good legal counsel to ensure that this credit facility is legally incorporated in a way which protects and promotes the long-term interests of the Associations. There are some indications that the facility will be legalized by December 31, 1998.

X. Conclusions and Lessons Learned

Income generating public works contracted by Associations have had a direct and very positive impact on promoting food security in target watersheds. The wage effects are obvious. People have more money to buy food. The agronomic effects of years of building SWC measures are harder to measure but there is no doubting the positive impacts.

Check dams and rock wall terrace construction have a multiple, cascading effect on promoting food security. These structures decrease scour and erosion. They promote vegetative growth and improve crop yields. They increase rainfall infiltration, which increases aquifer recharge, which increases groundwater resources, which increases potential irrigation water supply. Trees are harvested for fire wood which is sold to buy food. Increased vegetative cover means more goats, more money, more meat, a better diet, and a more vigorous life.

Unlike previous PL-480 Title II Programs this one does not ignore urban Cape Verde. The extra income to borrowers generated from the two lending programs is measurable. People are borrowing money, paying it back, increasing their net worth, and increasing their food security.

Associations are earning significant profits which they are returning to members as dividends or holding in local bank accounts for future investment. This is an astounding development for Cape Verdeans accustomed to living from pay check to pay check. How this will play out in terms of increasing food security is an open question. There's no doubting the positive potential of all this financial leverage in the hands of local communities.

The PL-480 Program is investing a lot of money on drip irrigation in a country where some things don't change. Droughts happen in Cape Verde, pumps break down, wells run dry, and bugs eat vegetables. Despite FAO estimates very few farmers will net \$20,000 - \$28,000 /year tending a hectare of drip irrigated vegetables in Cape Verde. The program needs to factor in all the risks of doing irrigated agriculture in Cape Verde, especially when the program starts lending money for drip equipment. A well planned and executed drip irrigation program will have a positive impact. Otherwise the return on this investment will be much lower than investments in the credit and SWC sectors.

If demo plots, equipment grants, and access to credit don't convince farmers in the next twelve months to start replicating similar schemes using their own resources, the program should start shifting resources to finance more SWC public works and capitalize on-going credit facilities.

Staff time spent training loan officers, DGASP technicians, OASIS employees, and Association leaders has a very high return. Associations which received the most training are doing better work, are probably making more money, and are more likely to survive and grow.

The various financial spreadsheets used in the Micro Enterprise Training and Lending Program and Small Business Lending Program are extremely useful tools for measuring the profitability of

these loan facilities. Staff time spent training others to use these analytical tools has a high return.

Time spent in the field inspecting SWC work and meeting with DGASP technicians, Association members, and OASIS staff has a very high return. People tend to do a better job when their bosses take a real interest in what they're doing. Keeping a sharp eye on Association level bookkeeping could put a stop to small irregularities before they become big ones.

This program is awarding over \$2,000,000 / year in SWC contracts to Associations. Tracking the physical output, money spent, and employment indicators is a simple straight forward exercise. Tracking the changes in per capita and house hold income, the changes in dietary diversity, and the changes in number of meals eaten is expensive, time consuming, and subject to significant sampling error. Time spent monitoring these indicators has a low return. Time spent transferring outputs and indicators from one spreadsheet or format to another has a low return on management time. Time spent in the field helping OASIS and DGASP improve their accounting and contract management systems has a much higher return to management.

The question whether Associations are still around contracting for poverty reducing public works five or ten years from now is dependent on whether they keep on being good contractors for the PL-480 Program over the next three years. This is dependent on whether they receive continued in-service training through the program, good supervision from OASIS, and conscientious inspection and planning from DGASP.

OASIS has to decide whether it's going continue playing the role as senior construction supervisor or move up into higher management. OASIS has an opportunity now to staff up and hire trainers, technical supervisors, and a general manager. If OASIS can set the standard for both new and old Associations at a level where the Associations start behaving like very reliable contractors providing services at a prescribed level of competency - new worlds of opportunity will open up. If OASIS could be trusted to exact specified contractual levels of performance from Associations - with the threat of expulsion from the "pre-qualified short list of qualified contractors" for poor performance - it could perform some services now contracted to the DGASP Delegations.

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XII. Lists of People Contacted
(in chronological order)

FIRST WEEK:

Suzanne Schwoebel, Monitoring and Evaluation/Watershed Specialist, ACDI/VOCA
Gradomir Radisic, World Bank Economist for Cape Verde
Leao de Carvalho, Executive Secretary for the Environment (SEPA)
Maria Luisa Lobo, Former President of INIDA and consultant to SEPA
Yaya Konate, Environmental Specialist, SEPA
Frederic Brunner, French Cooperation Technical Assistant to the Secretary, SEPA
Jose Levy, President of INIDA
Helder Santos, Asst. Peace Corps Director and former Secretary of State for Rural Development
Carlos de Burgo, Economist, Legislator and Contract Translator
Jose Vera Cruz, Water Engineering Consultant to ACDI/VOCA
Iven Ose, Monetization Manager, ACDI/VOCA/Cape Verde
Humberto “Lopi” Lopes, President of OASIS Executive Council
Miguel Raebold, Peace Corps Director
Jose Goncalves, World Bank Economic Reform Program Coordinator, Cabinet of VP Minister

SECOND WEEK:

Sarah Adams, Peace Corps Nurse
Jesse Montestersky, Dr., U.S. Regional Medical Officer/Dakar
Joao Fonseca, Director General of DGASP
Antonio Sabino, former President of INIDA and DGASP, Consultant, Water Resources Institute
Julio Borges, President of Association – Joao Dias
Jose Carlos, Treasurer of Association – Joao Dias
Agostinho Moreno, President of Association – Pilao Cao
J.C. Lopes Tavares, Counselor of Association – Pilao Cao
Chico Furtado, Extension Worker, S. Cruz Delegation, Association – Saltos
Lela Fonseca, Project Coordinator for the RAF Project
Joao Lima, DGASP Chief of RE Division
Eugenio Barros, DGASP/DRE
Joi Andrade, Director of GEP, Ministry of Agriculture(MAAA)
Marie Claire Le Pape, EU-financed Advisor to LCP Cabinet

THIRD WEEK:

Jose Antonio Monteiro, Minister of Agriculture
Krystyna Bednarska, World Food Program (PAM) Representative
Diogo Castro e Silva, EU Technical Assistant for Food Security to Vice Prime Minister

Jose Texeira, Project Coordinator, S. Domingos drip irrigation site
Amadeu Silva, Watershed Development Specialist, ACDI/VOCA
Ulisses Delegado, Drip Irrigation Specialist, ACDI/VOCA
Joao Cabral, INFA/FAO Drip Irrigation Specialist
Carlos Carvalhos, INIDA Technician, owner of demonstration site in Cayumbra
Barbosa Amado, Owner of drip irrigation banana plantation, EU/FAO export project
Jose Antonio, Association Member – Galinheiro
Eva Ortet, Engineer, FAO/INFA Project and Technical Assistant to Achada Marva irrigation site
Bernardino Barros, Delegate of the Ministry of Agriculture, Fogo
Ildo Alves, Chief of INERF Delegation, Fogo
Luis Pires, Vice President of the District Council, Fogo
Sylvestre Ribeira, Director of District Council Monte Genebra Vegetable Project, Fogo
Venancio Medina Silva, Former Representative of the Amigos do Natureza, Fogo
Nasolino Santos, Director of EMPA
Tito Andrade, INIDA Field Engineer
Elisa Fortes Soares, INIDA Consultant and Director of the 1998 Socio-Economic Survey
Adelgisa Tavares Vaz, President, CECV

FOURTH WEEK:

Elwood Clark, former employee, Bureau of Land Reclamation, Church of Latter Day Saints
Thomas Gardiner, Headquarters Staff, ACDI/VOCA
Luis Dupret, Director General of International Cooperation, Ministry of Foreign Affairs
Comillo da Graca, U.S. Desk Officer for International Cooperation, Ministry of Foreign Affairs
Lawrence Benedict, U.S. Ambassador to Cape Verde

XIII. Site Visits

ASSOCIATION - JOAO DIAS (aka Flamencos Montante)

Tuesday, November 3, 1998 12:00 - 1:35 p.m.

Joao Dias is considered a very strong Association. They have 119 members, most of the residents of the community (zona), and the majority are young and female. Leadership seems able. Julio Borges is the President. He is an older resident and former emigrant to Senegal where he worked as mason and painter for himself and private companies. His French is good (a sign of some sophistication in his generation), and he appears to be respected by his young associates. The treasurer, Jose Carlos graduated from middle school, became sick, recovered and began working for the Association in 1996.

Their office is a former consumer cooperative and is also used as a health post. The community has a school, and UNICEF contracted with the Association (after trying to work with the Municipality, i.e., the Camara) to build a very impressive latrine for the school.

In 1997, they had 9,500,000 CVE in contracts – 8 million CVE for SWC and 1,500,000 CVE with UNICEF and others. In 1998, their contracting work totaled more than 7 million CVE. They participated in the 1999 Plan which involves continuing some previous work plus new construction. They claim there is enough work, and that in 1997 they had to hire non-members. President Julio stated that youth only emigrate when there is insufficient work.

INERF built a large reservoir, and members own some irrigated and rainfed land (regadio and sequeira). The State took over the previous owners' land, and tenants have usufruct rights (posse de terra). They pay no rent to the State. Water distribution for irrigation is based on traditional patterns and is not a problem.

The Association would like to work more with pigeon peas and continue their current work. In the future, they would like to support the health post and become more involved with livestock.

ASSOCIATION - FLAMENCOS JUSANTE

Tuesday, November 3, 1998 10:00 - 11:35 a.m.

We met with the Association officers – the President and Secretary - and four members, including a woman. The President worked with his father on some irrigated land. He had not worked with the FAIMOs previously. The Secretary is a monitor at the child care center (creche). She is paid by the S. Miguel District Council (Camara Municipal). The Association built and furnished the creche with its profits.

This Association is considered strong and well structured. There are 78 members, less than one-fourth of the population of the area (zona). It was formed on the basis of an affinity group, not further defined. Work hours are from seven in the morning until one in the afternoon. The workers' wages are:

Apprentice	275 CVE/day
Worker	363 CVE/day
Mason	399 CVE/day

This is standard pay for all work on the fronts, whether paid by the Associations or INERF. The group claimed that the INERF fronts work less but are paid the same.

Association members claimed that they chose the work sites, and that there is no Master Plan for Ribeira Flamencos. However, they are all aware of some guiding concepts.

The Association profits (excedents) are 900,000 CVE for 1997, within the NTE 30 percent profit reserve required under Association by-laws. To draw funds on the Association accounts, checks require three signatures – the President, Secretary and Humberto (Lopi) Lopes, the OASIS representative.

OASIS HEADQUARTERS

Saturday, October 31, 1998 9:30 - 2:30

We met with Humberto “Lopi” Lopes at the OASIS headquarters in Calheta. He is a former community organizer/extension leader. Now, while a paid technician of DGASP seconded to OASIS, he serves as President of OASIS’ Executive Council (a CEO function). He was elected or endorsed by OASIS’ General Assembly, made up of representatives of the Associations.

In 1986, Lopi began working with Tom Gardiner, formerly of the USAID/Sheladia Watershed Management Project and Amadeu Silva, then with the Ministry of Agriculture on soil/water conservation works, improved wood stoves and started the reconverted work fronts (frentes reconvertidos). These accounted for 15 to 20 percent of all work fronts at that time. This program was stopped from 1989 to 1995, then restarted as farmers’ Associations.

The OASIS General Assembly meeting led by Lopi took place at Flamencos (Jusante) Association offices and covered items on the attached agenda (Ordem do Dia). The discussion was lively and very interactive. OASIS staff and accountant and ACDI’s Suzanne Schwoebel and Accountant Felipe Silva participated fully in the meeting. Representatives of almost all Associations were present, and the hottest discussion seemed to turn on accounting matters and delays in payment for SWC work and the procedures involved.

The ACDI staff presented a flow chart showing where steps could be speeded up. The average payment delay is 47 days from works inspection, decision on progress payment and deposit of progress payment to Associations’ bank accounts. Despite a 20 percent down payment on the SWC works contracts, Associations were unhappy about the delay, and there was a certain amount of back and forth “finger pointing.”

Among other items, a site visit program was set up for evaluators to visit Associations, i.e., Flamencos Jusante, Joao Dias and Saltos.

ASSOCIATION – PILAO CAO

Wednesday, November 4, 1998 10:00 - 12:30

There are 105 members, of which 62 are women. This is less than one-third of the population of the zona. As a result of the October 1998 elections, a new President, Agostinho Moreno, was elected; a new counselor (premeiro vogal) J.C. Lopes Tavares and other new officers were chosen. The President is a former INERF controller, and the counselor works at the Ministry of Education Delegation in San Miguel (the Conselho).

The original officers of the Association were selected by consensus but did very little. The issue in the elections was selecting a more dynamic team, and this one is quite young (in their 20s and 30s). This is still among the weaker of the Associations. Training sessions for the new officers were being held and led by Lopi.

The Association officers are young; many have had experience with INERF work fronts and are persuaded that their work is better and faster than INERF's. Their contracts for 1997 were worth 2,500,000 CVE for CRWT, maintenance of reservoirs and other SWC works. The profit was 370,000 CVE, kept in the Banco Commercial do Atlantico, Tarrafal. There are no plans for its use as yet. Their contracts for 1998 were worth 4,970,000 CVE, but profits are not known as yet. The Association has hired non-members who want to work but don't want to pay membership and other fees. They expect to do some work for the Camara and INERF, usually in maintenance.

Certain members work as volunteers. These are usually civil servants. Young people have good expectations of working for the Association and prefer work on CRWT to dikes. There are some women masons on the Association's work teams. The Association focuses on promoting the practical benefits (work, quicker pay, etc.) to its membership.

For 1999, a plan has been developed for about five million CVE, primarily for CRWTs and forestry. DGASP's Eugenio Barros and ACIDI's Engineer Jose Vera Cruz assisted in plan development. The MAAA Delegate (Delegado) from S. Miguel could not come. (In his place, Narcissa Gomes of the Tarrafal delegation reviewed and approved the 1998 plan.) The Association leadership said that they decided on the placement of CRWTs and dikes for this year's program (1999).

The Executive Council at the Association Council needs to keep track of the status of the works and the accounts on behalf of the Association General Assembly. To improve maintenance, the Association signs an agreement with landowners which commits the landowners to maintain the SWC works. To enforce agreements and resolve conflicts, Associations can go to OASIS and oblige the landowners to pay.

ASSOCIATION – SALTOS

Wednesday, November 4, 1998 1:00 - 2:15 p.m.

This Association suffered a major shock with the disappearance of the President, Antonio Julio do Andrade Monteiro, and 1,500,000 CVE of the Association's bank account in July 1998. The Association is "picking up the pieces" and moving on.

Currently, the Association has 58 members, about one-fourth of the population of the zone. It has a new set of officers, after a second set following on the heels of the theft proved unsatisfactory. The officers are organized in the usual way, e.e., President (the third one), Vice President (the third), and a woman Treasurer/Accountant (the second). All are young, not very articulate and seem to defer to Chico Furtado, the extension worker from the S. Cruz Delegation. Chico was a former Watershed Project Coordinator.

The Association membership is predominantly female and younger, with many in their 20s and 30s. The Association has worked on CRWT, irrigation canals, dikes, wash spigots, etc. They have completed about 15,000,000 CVE worth of SWC works in the past, including 7,080,919 CVE in 1998. For 1999, a reservoir is planned which may permit drip irrigation. The high value of their contracts is based on the high material cost involved in water and irrigation works.

The theft by former President Monteiro could have been prevented. (N.B. an experienced Cape Verdean observer pointed out this was not a very rare occurrence.) A special audit called to deal with this situation occurred in September 1998, covering 1996 and 1997, and was full of evidence that abuses were occurring. These irregularities included authorizing pay for the President and differences between withdrawals and pay outs to workers or suppliers. The President was well respected, a former teacher and a very plausible speaker. He served as President of OASIS's General Assembly. He forged signatures of other obligatory co-signers on the checks and withdrew amounts in series from the Association's account in the Banco Commercial do Atlantico in Praia. (This Association account also contained burial society funds.)

Despite this event prejudicial to the Association movement, officers and members seem prepared to get on with the program. Four recommendations can be made to deter abuses in the future:

1. Pursue the alleged perpetrator by all available criminal and civil justice means. Ascertain whether the Banco Atlantico/Praia branch has liability for improperly reviewing and accepting forged documents. Attempt to obtain compensation if this is the case.
2. Determine whether the Inspector General of Finance should be involved in this case, examining the pros and cons and consulting legal assistance to consider whether the Inspector of Finance involvement is appropriate.
3. Review the Association's and OASIS' accounting and reporting systems. The after-the-fact audits show that easy-to-spot abuses were occurring during 1997. A system of spot checks could have readily picked up the anomalies. Crank this into the monitoring system and make it an explicit part of Associations' understandings of their conditions/responsibilities.

4. Encourage and support this Association and its new, young and somewhat timid leadership in its effort to move forward.

DRIP IRRIGATION AND DEMONSTRATION SITES – SAO DOMINGOS AND ENVIRONS

Tuesday, November 10, 1998 9:00 - 4:30 p.m.

9:00

Our first stop was Sao Domingos where drip irrigation of cabbage and tomatoes is carried on. There a shipping container is used as a warehouse. The warehouse stores the irrigation delivery tubes sufficient for two hectares of cultivated land. Other tubes have been sent to cultures in Fogo and Santo Antao. Pumps and other irrigation materials are also inventoried here. A local firm, MATEC, builds a 30,000 CVE sand filter tank. Imported varieties cost 100,000 CVE. There is a problem with the sand used in the tanks. It must be of a certain type not available here, so it is imported. The temporary tanks are rigid metal frames with heavy rubber liners and covers. The Project Coordinator is Jose Texeira.

BOA ENTRADA

10:40

Several sites in Boa Entrada are supported through the FAO/UTF/CVI/035/CVI project. These are cabbage and tomato demonstration projects. FAO and ACDI financed the donated supplies and the farmers' contributions, with credits to cover this from CCR. Joao Cabral formerly of INFA accompanied us on the drip irrigation visits; Amadeu Silva and Ulisses Delegado, ACDI's drip irrigation specialist, were part of the team.

There were many small parcels farmed by young men on family land in the upper reaches of Santa Cruz Ribeira. Some structures are quite old, developed for traditional irrigation for sugar cane and manioc. Conversion to drip irrigation went fairly easily. They have tried various systems (T-tape, etc.) and have a well established water supply system.

It looks like a better investment to install drip systems in wetter, upper reaches where irrigated parcels are small, and people have the custom of working together in traditional work groups (Djunta Maos).

CAYUMBRA

1:00 p.m

A large field in Cayumbra (a sub-Ribeira to Ribeira Seca) suffered from lack of water. Sweet peppers have been planted but are not doing much due to water scarcity. The owner is Carlos Carvalho, a former INIDA technician.

MONTENEGRO

1:30 p.m.

In Montenegro, a large European Union/FAO-financed project specializes in bananas for export to Europe. A private owner, Barbosa Amado, provided well water, labor, etc., and the EU

project financed all the equipment. Bananas are in vitro varieties, produced without agro chemicals so that they can be marketed as an "organic" product.

SAO FRANCISCO

2:15

An older farmer growing sugar cane converted to an excellent drip irrigation cabbage field. Cabbage sells for 90-95 CVE/kg, and carrots are planned for the next rotation. All of this equipment (52,000 CVE in value) came from ACDI/METLP. He had a good gallerias water source, is a member of the Association of Sao Francisco, and believes he can easily pay off his loan and expand his lands in irrigated production. This was the best option observed during the day of site visits.

ASSOCIATION - SAO FRANCISCO

3:15

This Association does gabion production. (A gabion is a wire cage specially made to contain rocks for building irrigation ditches and walls.) Their production began in early 1998 after Amedeu Silva traveled to Burkina Faso to visit Bernard Ouedraogo's 6S establishment in Ouahigouya. Amadeu brought back photos, plans, etc., and work was begun in January 1998. The Association President said the production was halted due to lack of raw material. He is a teacher, and the Association has 49 members out of 100 plus households. (Gabion production/cost data is available at the ACDI office.)

ASSOCIATION - RIBEIRA FILIPE

Wednesday, November 11, 1998 11:00 a.m.

The Association of Ribeira Filipe is high up the volcanic basin (caldeira) in the north and is the one most distant from Sao Filipe. Only members were present; all the officers were absent. It is a strong Association.

In 1998, it had direct contracts with the Delegation to make a large catchment basin and reservoir. The profits were 1,700,000 CVE, out of which one million CVE were distributed. The 1999 contracts with DGASP will total about 5 million CVE. (Their accountant has been trained.)

There are 56 members out of 90 households. (In Fogo, there are 10-13 members to a family as compared to six in Santiago.) Historically, they did FAIMO work fronts for INERF for three years in afforestation.

The President was elected in March 1998. A Commission helped to form the Association. Over two to three years, the Association did many works with Canadian financing in creches and nurseries for horticulture and forest trees. The group works together to gather fodder (djunta maos). For 1999, they will plant fruit and forest trees, CRWTs, earthen bunds and lay pipes from the reservoir to the nursery planting areas. The Association made this plan, the budget of which is in Praia at ACDI. They have contacts with other groups -- Cabeza Mont and

Galinheiro. They visit each others works for an exchange of experience. Sr. "Berna" from OASIS has visited here. They know about OASIS, and they think it's a good idea for Fogo. They want to see OASIS in action and want an invitation to visit.

Discussing accounting, they said all accounts were done with the Delegation. They now have a school teacher as an accountant. No credit has been received. They would borrow money for animal husbandry, and a cheese and butter project.

They said that other people in the area had not been "believers" in Associations and they needed to see the results before joining.

ASSOCIATION - GALINHEIRO

Wednesday, November 11, 1998 12:10

We spoke to Sr. Antonio, an Association member and one female member. The female members raise chicken peeps and have started a bakery which is not yet producing. They need further training on this. There are many other SWC groups as well.

There are 47 members out of 135 households (with a population of 800, half are men and half are women). The Association does not have any emigrant members, but certain of the returned emigrants support the Association's activities.

The 1999 program includes a reservoir, plantation of fruit trees and CRWTs. The budget is now in Praia. In 1998, they had various contracts with ACDI, the Canadians, and Project RAF. They had 900,000 CVE in profits. A bakery, livestock, etc., were financed by these contracts. The value of the works was:

RAF	80,000 CVE
Canada	700,000
ACDI	3,500,000

Many more people (20) want to work in /and join the Association now. This group was doubtful earlier on; only five women were interested in this group.

They have discussed the question of group guarantees for individual loans, but borrowers here prefer to provide collateral of house or land. They have 20 years' experience with their burial society. A female group within the Association raised 400 chicken peeps for meat chickens. They were sold to AGRIPPEC. They plan to raise 600 the next time. They had a problem with selling these products. They can sell them in Fogo, but exporting them to the other islands is difficult. The Canadian Fund financed this as a loan, but later turned it into a grant. (They don't need loans, as they have cash in the bank.)

They have contacts with other Associations. Berna of OASIS came here to explain OASIS. There is a group, Association of Zonas Altas, which includes Ribeira Filipe and Montainho. Earlier, these were reconverted work fronts (frentes reconvertidos). The President of the

Association is a health worker.

ASSOCIATION - CABEZA MONT

Wednesday, November 11, 1998 3:25 p.m.

We meet at the Association bakery. The president said they had an earlier work group of 21 which planted a lot of forest and fruit trees, developed a bakery and a carpentry shop. The Association now has 23 members of which only 18 work. They will have a start with their first contract in 1999. It is for six million CVE with DGASP for afforestation and SWC. In 1998, contracts were for 3.6 million CVE. The 40 non-member household in the district have other income, did not need the work as they rely on emigrant remittances. However, nine more households will join soon.

Their 1998 profits were handled, as follows:

- 1,078,000 CVE balance remains in account
- 370,000 CVE distributed @ 15,000 CVE per member
- and 5,000 CVE per non member worker
- total 1,448.000 original profit

They receive eight percent interest in their account at the Banco Commercial do Atlantico. (Unique for an Association!) Their President was in Praia to visit OASIS and other Associations in Santiago. They'd like loans for a guest house (pousada) as the Association is in a good climate. They would also like a loan for a health post.

They have good relations with the District Council. The President was invited to direct construction in Sao Filipe. The Association President worked as a Controller of the FAIMO work fronts, as well as a mason and skilled worker. He was also President of the Commission of Moradores and United Youth (Jovens Undas), a Christian youth group which worked with fruit and animal husbandry. This group belonged to the Association of Zonas Altos de Fogo where they made a good reservoir to encourage fruit production.

Women in this Association lack the capital to be petty traders, but when there is surplus production they take it to Sao Filipe to sell. They also go 10 to 15 kilometers to sell bread.

ASSOCIATION - COUTELU CAPADO

Wednesday, November 11, 1998 4:30 p.m.

We met with the wife of the President, a pillar of the Association (which was also in the Zonas Altas program). Also present was another female member and the oldest member, a man. There are 23 members of which 14 are women. Thirteen of the women are masons. There are 36 workers, including the 23 members, out of 150 households.

In the beginning, the Zonas Altas group's salary was less than that of the Associations or the FAIMOs. Now many want to join the Association. Before they worked with MDR on earthen

bunds (banguelos). They felt that INERF did bad work, and they were not satisfied. Now they have profits (excedents), as follows:

Profit	2,200,000 CVE
less 15,000 for members, 5,000 CVE for non member workers	400,000 CVE
Balance	1,800,000 CVE

The General Assembly of the Association wants to use this for animal feed and other agricultural inputs. With these profits and funds from French Cooperation, they'll get a feed mill operating and develop a delivery and sales outlet.

The Delegate said that there are not enough insecticide pumps. The Association complained and succeeded in getting more from the Delegation of the Ministry of Agriculture. However, they have a hard time trying to meet their needs with the existing number of pumps and certainly need more for the projected agricultural efforts. They filled out forms and filed them at CCR but had no response.

DRIP IRRIGATION SITE - ACHADA MARVA

Thursday, November 12, 1998 9:00 a.m.

We visited a private drip irrigation plot, receiving help from different sources. The land belongs to one individual, but MAAA used it to produce nursery plants of forest and fruit trees. When MAAA abandoned it, the owner – who has a good well – began to produce horticultural products, such as strawberries and seed potatoes. They have a big market outside Fogo, and they also have a sales outlet with agricultural inputs in S. Filipe.

The family of Joao Andrade y Brandao owns the site, and his daughter, Engineer Eva Ortet, who works for the FAO/INFA S. Domingos project, provides technical assistance. They have a pickup truck to deliver produce to town or port. Many women traders also come from Santiago island to buy, as prices are much lower than in Santiago. It still is profitable for the landowner. His land of about three hectares is all in terraces. (There are nearby small holders doing drip irrigation on their one-quarter hectare plots.) Marketing is the key and their weakest point.

XIV. Appendices

- Appendix i Cape Verde Commodity Costs
- Appendix ii Cape Verde ACDI/VOCA Organization Chart
- Appendix iii Local Currency Receipts and Disbursements
- Appendix iv ACDI/VOCA Memorandum, Subject: Drip Irrigation Installed
- Appendix v Table 2 Annual Monitoring Indicators - Annual Targets
- Appendix vi Table 3 Impact Indicators - Annual Targets

Appendix i Cape Verde Commodity Costs

Shipment: Program FY	1996	1997	1997	1998	1998	1998	1998	1998	1999	1999	1999	Total
Funds Received: FY	1997	1998	1998	1998	1998	1998/99	1998/99	1998/99	1998/99	1998/99	1999	
Commodity	Long Grain Rice	Medium Grain Rice	Corn	HRW Wheat	SRW Wheat	Pinto Beans	Lt Red Kidney Bns	Corn	HRW Wheat	SRW Wheat	Corn	
Vessel	ABS Avon	Slapy	Marcel	Teco Trader	Teco Trader	St. Ioannis	St. Ioannis	Elijeanne	Pearl	Pearl	Hero	
Flag	Non-U.S.	Non-U.S.	Non-U.S.	U.S.	U.S.	Non-U.S.	Non-U.S.	Non-U.S.	Non-U.S.	Non-U.S.	Non-U.S.	
Buyer	EMPA	EMPA	EMPA	MOAVE	MOAVE	EMPA	EMPA	EMPA	MOAVE	MOAVE	EMPA	
Discharge Began	26-Dec-96	02-Apr-97	13-Oct-97	03-Mar-98	03-Mar-98	28-Jul-98	28-Jul-98	17-Oct-98	14-Sep-98	14-Sep-98	Jan-99	
Bill of Lading MT Shipped	3,798.20	4,801.85	2,900.00	2,500.00	2,500.00	608.05	608.55	5,733.25	2,498.87	2,500.00	6,100.00	34,548.77
Pre-shipment Est Cost/MT												
\$ Commod Cost/MT	\$362.00	\$390.87	\$140.00	\$150.00	\$140.00	\$665.00	\$680.00	\$114.00	\$140.00	\$110.00	\$110.00	
\$US BNT Cost/MT			\$5.00									\$5.09
\$ Frt Cost/MT (non-U.S. carrier)	\$61.89	\$76.33	\$49.75	\$49.75	\$49.75	\$90.00	\$90.00	\$49.75	\$47.50	\$47.50	\$47.50	
\$ Tot Cost/MT C&F	\$423.89	\$467.20	\$194.75	\$199.75	\$189.75	\$755.00	\$770.00	\$163.75	\$187.50	\$157.50	\$162.59	
Cost Recovery Benchmark (80%)	\$339.11	\$373.76	\$155.80	\$159.80	\$151.80	\$604.00	\$616.00	\$131.00	\$150.00	\$126.00	\$130.07	
Negotiated Price/MT SUS	\$413.89	\$330.00	\$173.25	\$188.00	\$178.00	\$740.00	\$755.00	\$162.00	\$170.00	\$146.00	\$163.85	
Exchange Rate CVE/\$US	82.07	82.29	94.03	97.77	97.77	97.82	97.82	101.93	100.42	100.42	99.56	
Negotiated Price - CVE/MT	33,968	27,156	16,291	18,381	17,403	72,387	73,854	16,513	17,071	14,661	16,313	
Competitive World Price												
\$ Commod Cost/MT	\$285.00	\$209.00	\$118.50	\$140.00	\$130.00	\$567.39	\$624.84	\$107.60	\$122.00	\$98.00	\$103.75	
\$US BNT Cost/MT			\$5.00					\$5.09			\$5.09	
\$ Frt Cost/MT	\$35.00	\$35.00	\$49.75	\$48.00	\$48.00	\$48.00	\$39.95	\$48.00	\$36.50	\$36.50	\$38.52	
\$ Tot Cost/MT C&F	\$320.00	\$244.00	\$173.25	\$188.00	\$178.00	\$615.39	\$664.79	\$160.69	\$158.50	\$134.50	\$147.36	
Country of Origin	Vietnam	Vietnam	USA - Gulf	USA - Gulf	USA - Gulf	USA - Gulf	USA - Gulf					
Actual Cost/MT												
\$ Commod Cost/MT	\$372.57	\$365.96	\$118.48	\$143.47	\$140.57	\$567.39	\$624.84	\$89.35	\$115.43	\$93.94		
\$US BNT Cost/MT			\$5.09									
\$ Frt Cost/MT - U.S. Carrier				\$84.95	\$84.95	\$92.30	\$92.22					
\$ Frt Cost/MT - Non U.S. Carrier	\$76.50	\$97.57	\$49.75					\$39.95	\$36.50	\$36.50	\$38.52	
\$ Tot Cost/MT, CIF-CV	\$449.07	\$463.53	\$173.32	\$228.42	\$225.52	\$659.69	\$717.06	\$129.30	\$151.93	\$130.44	\$38.52	

Statistical Relationships

Cape Verde PL-480, Food for Peace 100% Monetization Program

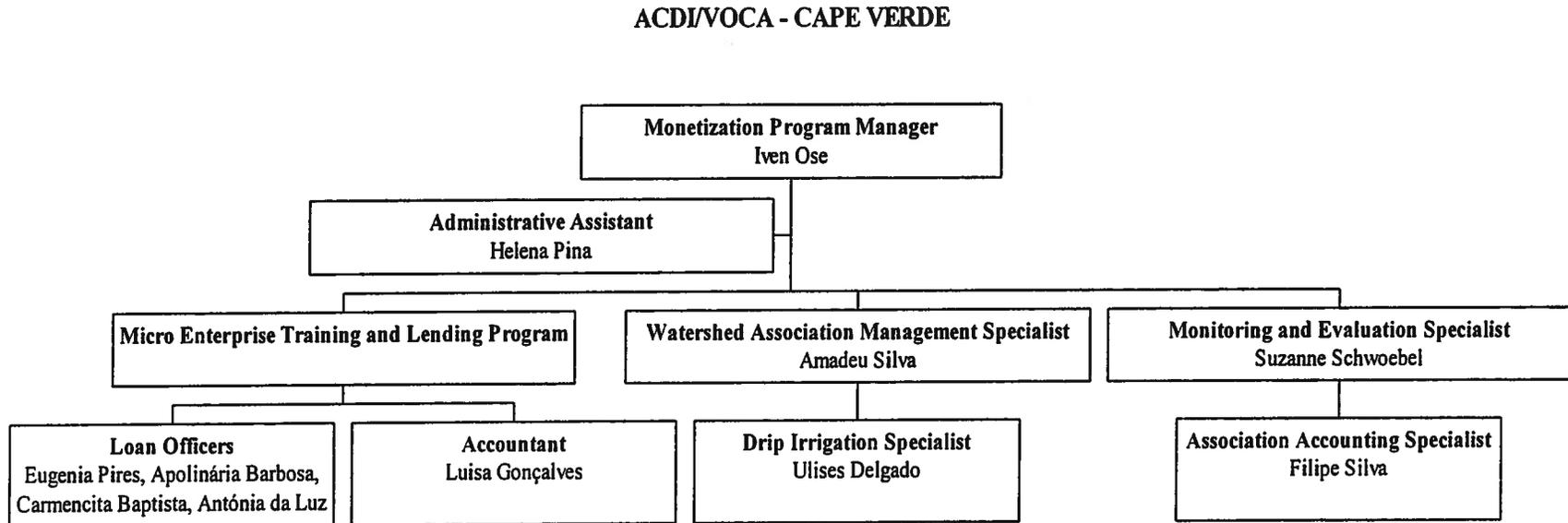
Mid-term Evaluation

Shipment: Program FY	1996	1997	1997	1998	1998	1998	1998	1998	1999	1999	1999	Total
Funds Received: FY	1997	1998	1998	1998	1998	1998/99	1998/99	1998/99	1998/99	1998/99	1999	
Commodity	Long Grain Rice	Medium Grain Rice	Corn	HRW Wheat	SRW Wheat	Pinto Beans	Lt Red Kidney Bns	Corn	HRW Wheat	SRW Wheat	Corn	
Vessel	ABS Avon	Slapy	Marcel	Teco Trader	Teco Trader	St. Ioannis	St. Ioannis	Elijeanne	Pearl	Pearl	Hero	
Negotiated Price / Pre-shipment Estimate	97.6%	70.6%	89.0%	94.1%	93.8%	98.0%	98.1%	98.9%	90.7%	92.7%	100.8%	
Negotiated Price / Cost Recovery Benchmark	122.1%	88.3%	111.2%	117.6%	117.3%	122.5%	122.6%	123.7%	113.3%	115.9%	126.0%	
Negotiated Price / Actual C&F Cost	92.2%	71.2%	100.0%	82.3%	78.9%	112.2%	105.3%	125.3%	111.9%	111.9%		
Negotiated Price / Competitive World C&F Price	129.3%	135.2%	100.0%	100.0%	100.0%	120.2%	113.6%	100.8%	107.3%	108.6%	111.2%	
Actual C&F Cost / World Comp C&F Price	140.3%	190.0%	100.0%	121.5%	126.7%	107.2%	107.9%	80.5%	95.9%	97.0%	26.1%	
Shrink								a/				
MT Paid For	3,773.55	4,767.62	2,851.60	2,478.50	2,485.50	602.53	600.82	5,630.25	2,488.50	2,474.50		28,153.37
Shrink MT	24.65	34.23	48.40	21.50	14.50	5.52	7.73	103.00	10.37	25.50		295.40
Value of Shrink \$US	\$10,202	\$11,296	\$8,385	\$4,042	\$2,581	\$4,085	\$5,836	\$16,686	\$1,762	\$3,723		\$68,599
Value of Shipment per Bill of Lading Tonnage	\$1,572,037	\$1,584,611	\$502,425	\$470,000	\$445,000	\$449,957	\$459,455	\$928,786	\$424,807	\$365,000		\$7,202,078
Shrink %based on value b/	0.65%	0.71%	1.67%	0.86%	0.58%	0.91%	1.27%	1.80%	0.41%	1.02%		0.95%

a/ The MT to be paid for on this shipment is under negotiation at the time of this writing. There is a dispute with respect to the accuracy of the buyer's (EMPA's) scales.

b/ Shrinkage of up to 1% is considered standard in the grain trade for this type of transaction.

Appendix ii Cape Verde ACDI/VOCA Organization Chart



Appendix iii Local Currency Receipts and Disbursements — Page ½

	Cape Verdean Escudos			US Dollars		
	Actual	Projected	Projected	88.1435	94.2995	CVE/\$US
	Two Years	Three Years	Five Years	Actual	Projected	Projected
	<u>FYs 97 - 98</u>	<u>FYs 99 - 01</u>	<u>FYs 97 - 01</u>	<u>FYs 97 - 98</u>	<u>FYs 99 - 01</u>	<u>FYs 97 - 01</u>
Receipts						
FY 1996 Rice	128,180,014	0	128,180,014	\$1,559,739	\$0	\$1,559,739
FY 1997 Rice	129,468,086	0	129,468,086	\$1,575,413	\$0	\$1,575,413
FY 1997 Corn	46,454,560	0	46,454,560	\$494,040	\$0	\$494,040
FY 1998 Wheat	88,812,019	0	88,812,019	\$908,377	\$0	\$908,377
FY 1998 Beans	44,603,474	43,384,181	87,987,655	\$455,975	\$443,510	\$899,485
FY 1998 Corn	0	94,671,191	94,671,191	\$0	\$928,786	\$928,786
FY 1999 Commodity	19,832,950	286,833,172	306,666,122	\$197,500	\$2,981,915	\$3,179,415
FY 2000 Commodity	0	287,776,000	287,776,000	\$0	\$3,128,000	\$3,128,000
FY 2001 Commodity	0	283,387,273	283,387,273	\$0	\$3,080,296	\$3,080,296
Total Commodity Receipts	457,351,103	996,051,818	1,453,402,921	\$5,191,044	\$10,562,508	\$15,753,552
Interest	3,911,386	3,187,987	7,099,373	\$42,040	\$33,944	\$75,984
Total Receipts	461,262,488	999,239,805	1,460,502,294	\$5,233,085	\$10,596,451	\$15,829,536
Disbursements						
Rural Engineering Works	236,657,838	511,289,305	747,947,143	\$2,674,510	\$5,439,057	\$8,113,567
Forestry Works	35,336,107	121,439,918	156,776,025	\$414,417	\$1,288,517	\$1,702,934
Drip Irrigation and Crop Improvement	31,724,477	126,000,000	157,724,477	\$379,297	\$1,341,251	\$1,720,548
Micro Enterprise Promotion	42,613,142	44,227,360	86,840,502	\$476,240	\$463,063	\$939,303
Small Business Promotion	41,500,000	89,500,000	131,000,000	\$476,583	\$937,776	\$1,414,358
PL-480 Office, Audit & Program Support	39,498,583	140,715,564	180,214,147	\$447,328	\$1,491,498	\$1,938,826
Total Disbursements	427,330,147	1,033,172,146	1,460,502,294	\$4,868,374	\$10,961,162	\$15,829,536
Receipts - Disbrsmnts	33,932,341	(33,932,341)		\$364,710	(\$364,710)	
Balance	33,932,341	0		\$364,710	\$0	
Commodities Received - Metric Tons						
Corn	2,900	31,765	34,665			
Rice	8,600	0	8,600			
Wheat	10,000	20,000	30,000			
Beans	1,220	0	1,220			
Total Received - MT	22,720	51,765	74,485			

Appendix iii Local Currency Receipts and Disbursements - Detail — Page 2/2

	Cape Verdean Escudos			US Dollars		
	<u>FY 97 - 98</u>	<u>FYs 99 - 01</u>	<u>FYs 97 - 01</u>	<u>FY 97 - 98</u>	<u>FYs 99 - 01</u>	<u>FYs 97 - 01</u>
Rural Engineering Works						
Associations	164,987,251	455,379,130	620,366,381	\$1,826,900	\$4,852,527	\$6,679,427
Prospective Associations	57,792,318	35,910,175	93,702,493	\$679,283	\$369,332	\$1,048,615
INERF	13,878,269	0	13,878,269	\$168,327	\$0	\$168,327
Private Contractor or INERF	0	20,000,000	20,000,000	\$0	\$217,198	\$217,198
Total REW Detail	236,657,838	511,289,305	747,947,143	\$2,674,510	\$5,439,057	\$8,113,567
Forestry Work Detail						
Associations	13,060,002	110,572,840	123,632,842	\$146,162	\$1,176,750	\$1,322,912
Prospective Associations	3,661,147	10,867,078	14,528,225	\$41,742	\$111,767	\$153,508
INERF	18,614,958	0	18,614,958	\$226,513	\$0	\$226,513
Total Forestry Detail	35,336,107	121,439,918	156,776,025	\$414,417	\$1,288,517	\$1,702,934
Agricultural Technology Transfer						
DGASP/AR/INFA/INIDA Agric Techn Prg	2,349,786	15,000,000	17,349,786	\$27,474	\$159,673	\$187,147
INFA/FAO Drip Irrigation	23,374,691	78,000,000	101,374,691	\$280,233	\$830,298	\$1,110,532
Direct Drip Irrig Assistance	1,000,000	18,000,000	19,000,000	\$10,748	\$191,607	\$202,355
Agr Credit Instution Support	5,000,000	15,000,000	20,000,000	\$60,842	\$159,673	\$220,515
Total Agric Techn Tran	31,724,477	126,000,000	157,724,477	\$379,297	\$1,341,251	\$1,720,548
Micro Enterprise Promotion						
Micro Ent Trg & Ldg Prog	22,140,750	41,086,752	63,227,502	\$247,559	\$430,763	\$678,321
Micro Entr Training (ICS)	20,472,392	3,140,608	23,613,000	\$228,681	\$32,301	\$260,982
Other Micro Enterprise Support	0	0	0	\$0	\$0	\$0
Total Micro Ent Promotion	42,613,142	44,227,360	86,840,502	\$476,240	\$463,063	\$939,303
Small Business Promotion						
Small Bus Ldg Prog (CECV)	41,500,000	41,500,000	83,000,000	\$476,583	\$426,823	\$903,406
IADE Invest Fund (IADE)	0	48,000,000	48,000,000	\$0	\$510,953	\$510,953
Total Small Business Prom	41,500,000	89,500,000	131,000,000	\$476,583	\$937,776	\$1,414,358
Local Office & Program Support						
Local Office Expense	11,279,894	37,852,621	49,132,515	\$128,089	\$402,269	\$530,358
Audit	1,569,000	6,450,249	8,019,249	\$16,864	\$68,500	\$85,364
Drip Irrigation TA Support	11,601,198	23,210,939	34,812,137	\$134,680	\$246,605	\$381,285
Farmer Assn TA Support	15,048,491	29,215,756	44,264,247	\$167,695	\$309,876	\$477,571
Subtotal	39,498,583	96,729,565	136,228,148	\$447,328	\$1,027,249	\$1,474,577
Add Indirect Costs	0	43,985,999	43,985,999	\$0	\$464,248	\$464,248
Subtot Loc Off & Prog Sup	39,498,583	140,715,564	180,214,147	\$447,328	\$1,491,498	\$1,938,826

Appendix iv ACDI/VOCA Memorandum, Subject: Drip Irrigation Installed

To: Bob Pierce and Tom Luche
 From: Iven Ose
 Subject: Drip Irrigation Installed
 Date: November 6, 1998

FFP Program	Sites	Nbr Farmers	Total Beneficiaries (estimated)	Area (ha)	
FY 92-96 FFP Program	ACDI Direct FY 95-96	11	44	225	4.0
	FAO/INFA a/	<u>30</u>	<u>81</u>	<u>403</u>	<u>8.8</u>
	Total	41	125	628	12.8
FY 97-01 FFP Program	A/V Direct FY 97 b/	7	28	140	3.0
	A/V Direct FY 98 c/	2	2	10	0.1
	FAO/DGASP FY 98	<u>53</u>	<u>62</u>	<u>310</u>	<u>5.9</u>
	Total	62	92	460	9.0
Grand Total to September 30, 1998		103	217	1,088	21.8

- a/ This FAO/INFA program began in February 1996 and was completed in March 1997. The outputs under this entire effort are attributed to the FY 92-96 FFP program since the funding was from that program.
- b/ During the April through September 1997 period, ACDI/VOCA hired the two technicians that carried out the FAO/INFA program. The "A/V Direct FY 97" results relate to their work.
- c/ ACDI/VOCA obtained GOCV approval of a drip irrigation program in April 1998 at which time our drip irrigation specialist, Ulises Delgado, was hired to carry out the A/V portion of the program, including the design of a credit program. This program includes a training component being carried out by DGARPC with heavy involvement by the FAO technicians and Ulises.

Appendix v Table 2 Annual Monitoring Indicators - Annual Targets																		
Annual Monitoring Indicators	1997			1998			1999			2000			2001			LOP target		
	Target	Actual	Actual as % of Target	Target	Actual	Actual as % of Target	Target	Actual	Actual as % of Target	Target	Actual	Actual as % of Target	Target	Actual	Actual as % of Target	Target	Actual	Actual as % of Target
Number of associations created (cumulative)	24	24	100%	30	31	103%	36			42			48			48	31	65%
Number of check dams constructed	248	350	141%	309	164	53%	387			387			387			1,718	514	30%
CRWTs constructed	75	203	271%	94	123	131%	118			147			147			581	326	56%
Area improved (ha)	75	224	299%	94	135	144%	118			147			147			581	359	62%
CVBs planted (km)	40	10	25%	40	36	90%	40			40			40			200	46	23%
Area improved (ha)	40	10	25%	40	36	90%	40			40			40			200	46	23%
Number of trees planted	100,000	79,609	80%	100,000	81,510	82%	100,000			100,000			100,000			500,000	161,119	32%
Number of people employed by program/year	3,000	3,849	128%	3,000	a/	a/	3,000			3,000			3,000			15,000		
Number of females employed by forestry program	700	652	93%	700	a/	a/	700			700			700			3,500		
% female employment in forestry program activities	75%	65%	87%	75%	a/	a/	75%			75%			75%			75%		
Number of drip systems installed	13	13	100%	25	55	220%	25			30			32			125	68	54%
Area of drip systems installed (ha)	3	3	100%	12.5	6	48%	15.0			15.0			17.0			62.5	9	14%
Number of micro enterprise loans provided	0	0	b/	100	1,175	1175%	500			1,500			1,500			1,500 loans /yr by 2000	1175	78%
Number of small business loans provided	0	0	b/	40	179	447%	200			300			400			940	179	19%

Appendix vi Table 3 Impact Indicators - Annual Targets																			
Impact Indicators	Baseline	FY 1997			FY 1998			FY 1999			FY 2000			FY 2001			LOP target		
		Target	Actual	Actual as % of Target	Target	Actual	Actual as % of Target	Target	Actual	Actual as % of Target	Target	Actual	Actual as % of Target	Target	Actual	Actual as % of Target	Target	Actual	Actual as % of Target
<i>Strategic Objective: Sustained improvement in household nutrition and agricultural productivity</i>																			
<i>Intermediate Result: Improved access to food</i>																			
1.(A) Per capita income of rural households (CVE/yr)	11,078*	11,632*	16,844*	145%	11,632	23,208 c/	200%	11,632			12,186			12,186			12,186	23,208	190%
2.(A) Per-capita incomes of FHH working for associations (CVE/yr)	8,962	9,410	14,199	151%	9,410	21,303 c/	226%	9,410			9,860			9,860			9,860	14,199	144%
3.(A) Number of meals eaten per day by rural households (meals/day)	2.93	3.08	2.84 c/ d/	92%	3.08	c/		3.08			3.08			3.08			3.08	2.84	92%
4.(A) Dietary diversity scores of rural households (categories/day)	5.35*	5.89	4.31 c/ d/	73%	5.89	d/		5.89			5.89			5.89			5.89	4.31	73%
5.(A) * Dietary diversity scores of FHH working for associations (categories/day)	5.23*	5.75	4.25 c/ d/	74%	5.75	d/		5.75			5.75			5.75			5.75	4.25	74%
6.(B) Income from irrigated land per household (CVE/yr)	58,234	77,450	e/		77,450	e/		77,450			77,450			77,450			77,450		
7.(B) Net monetary value of prod on irrigated land																			
per unit of land (CVE/ha)	415,957	478,350	e/		478,350	e/		478,350			478,350			478,350			478,350		
per unit of water (CVE/m ³)	36.1	41.5	e/		41.5	e/		41.5			41.5			41.5			41.5		
8.(C) Income of households receiving Micro loans separated by gender (CVE)	35,121	b/	b/		35,560	47,772	134%	35,999			36,438			36,877			36,877	47,772	130%
9.(C) Wealth of Households receiving micro loans separated by gender (CVE)	1,591,707	b/	b/		1,611,603	1,652,823	103%	1,631,500			1,651,396			1,671,292			1,671,292	1,652,823	99%

Appendix vi Table 3 Impact Indicators - Annual Targets																			
Impact Indicators	Baseline	FY 1997			FY 1998			FY 1999			FY 2000			FY 2001			LOP target		
		Target	Actual	Actual as % of Target	Target	Actual	Actual as % of Target	Target	Actual	Actual as % of Target	Target	Actual	Actual as % of Target	Target	Actual	Actual as % of Target	Target	Actual	Actual as % of Target
10. (C) Income of Households receiving small business loans (CVE)	61,545	b/	b/		62,314	73,189	117%	63,084			63,853			64,622			64,622	73,189	113%
11. (C) Wealth of Households receiving small business loans (CVE)	4,608,450	b/	b/		4,666,056	4,926,102	106%	4,723,661			4,781,267			4,838,872			4,838,872	4,926,102	102%
9. (C) Food expenditures of micro enterprise loan recipients (CVE/year)	154,622* i/	b/	b/		156,555	174,616	112%	158,488			160,420			162,353			162,353	174,616	108%
<i>Strategic Objective: Sustained improvement in household nutrition and agricultural productivity.</i>																			
<i>Intermediate Result: Improve natural resource management practices and agricultural productivity in marginal areas.</i>																			
1. (A) Recovered top soil (m ²)	0	28,182	52,091	185%	28,300	34,642	122%	28,300			56,610			56,608			198,000	86,733	44%
2. (A) Reclaimed surface area for cultivation (ha)	0	11	32.4	295%	11	19.6	178%	12			16			16			82	52	63%
3. (A) Corn and Bean Yields (metric tons/ha)																			
Improved yields after placement of CRWTs	0.2	0.25	f/			g/													
Improved yields after placement of CVBs	0.2	0.22	f/			g/													
4. (A) Reduced soil erosion of side slopes of rainfed land (% based on LS factor)	0	40%	71%	178%	40%	70%	175%	40%			40%			40%			40%	71%	178%
5. (A) Percentage of rural engineering works funded by P.L.480 constructed by associations	0	70%	83%	119%	70%	100%	143%	75%			80%			80%			80%	83%	104%

Appendix vi Table 3 Impact Indicators - Annual Targets																			
Impact Indicators	Baseline	FY 1997			FY 1998			FY 1999			FY 2000			FY 2001			LOP target		
		Target	Actual	Actual as % of Target	Target	Actual	Actual as % of Target	Target	Actual	Actual as % of Target	Target	Actual	Actual as % of Target	Target	Actual	Actual as % of Target	Target	Actual	Actual as % of Target
6.(A) Number of associations satisfactorily completing SWC contracts	16	24	24	100%	30	31	103%	36			42			48			48	24	50%
7.(A) Number of associations operating profitably	16	15	16	107%	18	h/		22			26			29			29	16	55%
<i>Strategic Objective: Sustained improvement in household nutrition and agricultural productivity</i>																			
<i>Intermediate Result: Improved credit facilities for micro and small business development</i>																			
1.(C) Avg. Number of employees of loan recipients	.68	b/	b/		.69	l/		.70			.71			.71					
2.(C) Loan recovery rates for Small Business Lending Program (%)	82%	b/	b/		93%	89%	96%	94			96			97			97		
3.(C) Loan recovery rates for Micro enterprise Loan Program (%)	95%	b/	b/		95%	100%	105%	95%			96			97			97		

* indicates a change in baseline values, and subsequent change in target values.

+ indicates a change in 1997 actual numbers resulting from works completed after 1997 ARR submission.

- a/ Information is being collected by ACIDI/VOCA and will be presented in 1998 ARR.
- b/ Micro enterprise and small business lending programs did not commence until FY 1998.
- c/ Raw data collected by INIDA has not been presented to ACIDI/VOCA for review and is subject to change.
- d/ Information from the April, 1997 study conducted by INIDA serves as baselines values. A second survey was conducted in January, 1998. Though the data was collected in FY98, information more accurately reflects an annual change and so is included under FY97. It should be noted that the drop in dietary diversity scores and number of meals eaten could result from seasonal differences when the studies were conducted, changes in methodology, market shortages, among other reasons.
- e/ ACIDI/VOCA contracted with INIDA to complete an analysis by August, 1998. As of November 18, 1998, no information had been presented to ACIDI/VOCA.
- f/ The baseline values for improvement due to the placement of CRWTs resulted from a crop cut survey conducted by OASIS at the end of the 1996 agricultural season. Thirteen parcels, including one parcel with CVBs were included in that survey. The data set was insufficient to establish 1997

actual values.

- g/ ACDI/VOCA and OASIS are currently collecting this information.
- h/ Associations operate on a calendar year.
- i/ This information is currently under review.