

PROJECT PAPER AMENDMENT

CAPE VERDE WATERSHED DEVELOPMENT PROJECT

(655-0013)

CONCURRENCE MEMORANDUM FOR THE DIRECTOR, REDSO/WCA

DATE: June 3, 1988
FROM: *Wayne J. King* Assistant Director, PDRI
SUBJECT: Cape Verde Watershed Development Project (655-0013):
Project Amendment.

REFERENCES: (A) ABIDJAN 10981 (B) PRAIA 1554

PROBLEM: The REDSO/WCA Director's concurrence is requested prior to (a) approving the attached Project Paper Supplement (including a revised procurement plan as required under DFA); (b) amending the project authorization to increase the LOP funding by \$2 million and extending the PACD to December 31, 1990; and, (c) amending the project grant agreement to reflect the above noted project modifications.

AUTHORITY: Sections 4 and 5 of Delegation of Authority 551 (as revised) gives authority to Principal Officers of Schedule "B" posts to amend project authorizations and project agreements provided that such officers have the prior concurrence of the REDSO Director before executing these amendments. Guidelines on the use of DFA funds require that a project procurement plan be prepared and approved for DFA funded projects. Authority to approve such procurement plans has been delegated to the field under DOA 551 (R) with prior REDSO Director concurrence in the case of Schedule "B" posts. The proposed amendment falls within the funding and life-of-project limitations stipulated in DOA 551. AID/W is expected to amend the PL480 Transfer Authorization in FY1989.

DISCUSSION: The proposed modifications are to extend the present assistance arrangements for two additional operating years with (a) a small increase in the level of PL480 commodities imported annually (15,000MT to 20,000MT Corn); (b) an extension of the technical assistance/training for that period of time; and, (c) additional construction material and equipment needed in order to extend the construction program for an additional two years. Specifically,

- The PACD will be extended from 06/30/90 to 12/31/90 to bring the PACD in line with the end of the 1990 program year of the Cape Verdean institutions implementing the project.
- The authorized LOP AID project financing will be increased from \$5,611,000 to 7,611,000.
- In 1989, the Transfer Authorization No.659-444-000-5608 will be amended to extend the authorization and add 20,000MT of corn to the agreement each year for US Gov't FY1989 and FY1990.
- Approve a Project Paper Supplement which modifies the program implementation plan to effect the above noted changes, makes adjustments to improve project performance and implementation progress and sets forth a revised project procurement plan.

The rationale for extending the project for two operational years with ancillary modifications of both the PL-480 program assistance and project assistance, is (a) the need for continued technical assistance and on-the-job training over a longer period of time than was initially anticipated; (b) the fact that conservation structures built with project assistance tend to be vulnerable to erosion, especially those located in the lower parts of the watersheds, and that this risk can be reduced substantially by continuing to implant conservation measures, especially vegetative measures, higher upstream in the watersheds, and (c) the additional two operating years added to this phase of the watershed development program will consolidate gains made and move toward less USAID management intensive types of assistance in a future phase of project assistance which is anticipated to start in 1990.

This project was evaluated in late 1987 in anticipation of extending the project this fiscal year. REDSO staff W. Rockwood and M. Baker participated in the evaluation and its review. REDSO PDO assisted the mission prepare the project paper supplement in late April, 1988. The available project documentation (PP Supplement, trip reports, evaluations, contractors reports, etc.) was reviewed by REDSO staff on May 11, 1988 with the mission represented by Mr. Jose Goncalves. ABIDJAN 10981 reported to the mission the results of this review. REDSO's Project Review recommended REDSO Director's concurrence with several changes in the project documentation. These changes have been incorporated into the project documentation.

RECOMMENDATION: It is recommended that you concur in (1) the proposed amendment of the Cape Verde Watershed Development project authorization; (2) the proposed amendment of the project grant agreement and (3) the proposed Project Paper Supplement (including the revised project procurement plan) by signing below and authorizing the attached cable which notifies the mission of your concurrences.

Concur: Arthur M. Fell
 Arthur M. Fell
 REDSO/WCA, Director

Do Not Concur: _____

Date: JUN 13 1988

Attachments:

1. Draft Authorization Package
2. Draft PP Supplement

Clearances:

| | | |
|-----------------|--------------------|--------------------------|
| A/DD:JStanford | <u>[Signature]</u> | Date: <u>6/10/88</u> |
| RLA:AWilliams | <u>[Signature]</u> | Date: <u>6/9/88</u> |
| ECCS:CMoseley | <u>[Signature]</u> | Date: <u>6/9/88</u> |
| GDO:JWashington | <u>[Signature]</u> | Date: <u>6/10/88</u> |
| WAAC:SCrabtree | <u>[Signature]</u> | Date: <u>6/10/88</u> |
| ROP:TStephens | <u>[Signature]</u> | Date: <u>9 June 1988</u> |
| ROP:PNeifert | <u>[Signature]</u> | Date: <u>9 June 1988</u> |
| ENG:WCollins | <u>[Signature]</u> | Date: <u>6/9/88</u> |
| FFP:RKidd | <u>[Signature]</u> | Date: <u>6/10/88</u> |

Drafted: [Signature] Baker, PDO:(DOC. 1251A p10-11) 03JUNE88.

ACTION MEMORANDUM FOR THE AID REPRESENTATIVE TO CAPE VERDE

From: Jose Goncalves, Project Administrator

Thru: Willie Saulters, Acting Agricultural Development Officer

Subject: Cape Verde Watershed Development Project (655-0013): Project Amendment.

Date:

Problem: Your approval is required to amend the subject project authorization increasing LOP funding by \$2.0 million from \$5,611,000 to \$7,611,000 and extending the PACD by six months from June 30, 1990 to December 31, 1990.

Authority: Guidance concerning the authority to increase LOP funding and to extend FACDs is contained in DOA 551 and Handbook 3 (Project Assistance). Under DOA 551, principal officers are delegated authority to amend project authorizations if the LOP funding thereby authorized does not exceed \$30 million and the period of the project does not exceed 10 years and provided that the REDSO Director concurs in your decision. HB 3, Chapter 13 provides little additional guidance determining the documentation requirements for making modifications to projects. The HB notes however that "The mission should, however, consult by cable with its regional bureau as to the extent of the proposed changes and its implications early in the modification process, and before the PP supplement is initiated".

Background: The Cape Verde Watershed Development Project (655-0013) was authorized on June 15, 1984 at a LOP funding level of \$5,611,000. This second phase project combined and replaced two earlier projects with similar objectives: the Watershed Management Project (655-0006) and a Food for Development program (655-PL01). The current program has been fully operational for about 26 months. The Watershed Development Project (655-0013) was recently evaluated and the evaluation report has been consulted in the preparation of this PP Supplement. However, the evaluation report did not provide a completely satisfactory and clear assessment of the overall program and performance of the institutions charged with its implementation.

Summary of Proposed Project Modifications: The proposed modifications are to extend the present assistance arrangements for two additional operating years with (a) a small increase in the level of PL480 commodities imported annually (15,000MT to 20,000MT Corn); (b) an extension of the technical assistance/training for that period of time; and, (c) additional construction material and equipment needed in order to extend the construction program for an additional two years. Specifically.

-The PACD will be extended from 06/30/90 to 12/31/90 to bring the PACD in line with the end of the 1990 program year of the Cape Verdean institutions implementing the project.

-The authorized LOP AID project financing will be increased from \$5,611,000 to 7,611,000.

-The Transfer Authorization No.659-444-000-5608 will be amended to add 20,000MT of corn to the agreement for US Gov't FY1989 and FY1990.

-Approve a Project Paper Supplement which modifies the program implementation plan to effect the above noted changes and makes implementation adjustments to improve project performance and implementation progress.

Rationale and Justification: The rationale for extending the project for two operational years with ancillary modifications of both the PL-480 program assistance and project assistance, is (a) the need for continued technical assistance and on-the-job training over a longer period of time than was initially anticipated; (b) the fact that conservation structures built with project assistance tend to be vulnerable to erosion, especially those located in the lower parts of the watersheds, and that this risk can be reduced substantially by continuing to implant conservation measures, especially vegetative measures, higher upstream in the watersheds; and (c) the additional two operating years added to this phase of the watershed development program will consolidate gains made and move toward less USAID management intensive types of assistance in a Phase III program which is anticipated to start in 1990.

Updates have been prepared of the the project's economic, social, and institutional analysis. In general, these analyses updates conclude that: (a) the conservation program supported by the project is economically justifiable; (b) that the lack of coordination and integration between GOCV agricultural research and extension services and the soil conservation service may not be as critical to the success of the project as originally believed; (c) that organizations and approaches started by the project to fill this void may eventually serve as part of a community-based effort for the continued phased development of the watersheds; and (d), that the community-based work fronts initiated by the project serve both to improve the quality and quantity of work completed and hold considerable promise of expanding the participation of smallholders in their own efforts to managing the watershed's resources.

The benefits of the project are substantial and tangible. Chief among these are: (a) the imported food aid saves the GOCV scarce foreign exchange; (b) the local currencies which it generates have provided temporary employment (nine months per year) to at least 3,500 rural workers; (c) the soil and water conservation structures and biological erosion control measures implanted by the project are making improvements in soil fertility and water infiltration. The long-term phased approach taken by AID in support of watershed development in Cape Verde is making technical improvements in the program and building an appropriate national institutional capacity to guide and expand the effort in future years.

The purpose of the Watershed Development Project remains unchanged, namely, "to develop and protect the soil and water resources of the project designated watersheds". Modifications to the project logframe concerning end-of-project indicators, outputs and levels of inputs have been described in the PP supplement. A revised financial plan shows how additional resources provided by this amendment will be utilized. The implementation plans have been revised to show how project resources will be utilized over the extended life-of-project.

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As the project extension will be financed from the Development Fund for Africa (DFA), a project procurement plan has been prepared and included in the PP Supplement. The project procurement plan is summarized as follows:

The GOCV's role in procurement will be limited to contracting the services of a Procurement Services Agent for the procurement of construction related commodities and a small amount of local cost financed training. These host country procurements for commodities and training will cost approximately \$750,000. USAID will procure directly the project financed services, vehicles and shelf-items, totalling an estimated \$1.25 million. Project financed technical assistance including evaluation and audits (\$1.1 million), will be procured directly by USAID from existing project contractors or from standing A.I.D. IQCs. Project financed commodities (\$800,000) will be purchased by the host country using a PSA (estimated at \$640,000) or procured directly by USAID (vehicles and shelf-items estimated to cost \$160,000).

Other AID Project Requirements:

(1) An Advice of Program Change for the increased life-of-project funding is not needed as the life-of-project authorized and planned amount was presented in the FY 1988 Congressional Presentation. This includes the proposed obligation of \$1,700,000 in FY 1988.

(2) 121(d) Certification of the financial management and inventory systems used by the host country is recommended following a review of these systems by the Sahel Regional Financial Management Project staff and REDSO/WCA WAAC staff.

(3) REDSO/WCA Director's concurrence in (a) approving the PP supplement (including a revised procurement plan as required under DFA), (b) amending the project authorization and (c) amending the project agreement is set forth in ABIDJAN 12148 of June 13, 1988.

(4) The PL-480 Transfer Agreement increasing the levels of food aid in FY89 and 90 will be amended early in FY 89, in accordance with instructions received from AID/W.

Recommendation: That you sign (1) the attached Project Authorization Amendment thereby increasing the LOP financing by \$2.0 million and extending the PACD until December 31, 1990; (2) the cover sheet of the attached PP supplement; and (3) execute with the GOCV a grant agreement amendment reflecting the changes made in the project authorization.

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PROJECT AUTHORIZATION AMENDMENT NUMBER ONE

Name of Country: Cape Verde
Name of Project: Watershed Development
Number of Project: 655-0013

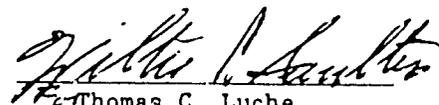
1. Pursuant to Section 121 of the Foreign Assistance Act of 1961, as amended, the Watershed Development Project for the Republic of Cape Verde was authorized on June 15, 1984. That authorization is hereby amended as follows:

(a) Delete paragraph 1 in its entirety and insert the following in lieu thereof:

"1. Pursuant to Section 121 of the Foreign Assistance Act of 1961, as amended, (the "Act"), and to the section entitled Sub-Saharan Africa, Development Assistance of the Foreign Operations, Export Financing and Related Programs Appropriations Act, 1988, (the "DFA"), I hereby authorize the Watershed Development Project for the Republic of Cape Verde ("Cooperating Country") involving planned obligations of not to exceed \$7,611,000 in grant funds over a six year period from the date of authorization, subject to the availability of funds in accordance with the A.I.D. OYB/allotment process, to help in financing foreign exchange and local currency costs of the project. Except as A.I.D. may otherwise agree in writing the planned life-of-the project is six years and five months from the date of initial obligation."

(b) Delete the last sentence of paragraph two and insert in lieu thereof "Funds thus made available will be used to finance local currency costs of the watershed development program including providing compensation to rural workers engaged under the program".

2. The project authorization cited above remains unchanged and in force except as hereby amended.



Thomas C. Luche
A.I.D. Representative
USAID/Praia

Clearances:

REDSO/WCA: RLA DL Date: 6/9/86

| | | | | |
|-------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------------------------------------|------------------|--------------------|
| AGENCY FOR INTERNATIONAL DEVELOPMENT PROJECT DATA SHEET | | 1. TRANSACTION CODE <input checked="" type="checkbox"/> A = Add <input type="checkbox"/> C = Change <input type="checkbox"/> D = Delete | Amendment Number | DOCUMENT CODE 3 |
| 2. COUNTRY/ENTITY Cape Verde | | 3. PROJECT NUMBER 655-0013 | | |
| 4. BUREAU/OFFICE Africa | | 5. PROJECT TITLE (maximum 40 characters) Watershed Development | | |
| 6. PROJECT ASSISTANCE COMPLETION DATE (PACD) MM DD YY 1 2 3 1 9 0 | | 7. ESTIMATED DATE OF OBLIGATION (Under 'B.' below, enter 1, 2, 3, or 4) A. Initial FY 84 B. Quarter <input type="checkbox"/> C. Final FY 89 | | |

| 8. COSTS (\$000 OR EQUIVALENT \$1 =) | | | | | | |
|---------------------------------------|-------------|--------|----------|-----------------|--------|-----------|
| A. FUNDING SOURCE | FIRST FY 89 | | | LIFE OF PROJECT | | |
| | B. FX | C. L/C | D. Total | E. FX | F. L/C | G. Total |
| AID Appropriated Total | | | | | | |
| (Grant) | (1,700) | () | () | (7,611) | () | (7,611) |
| (Loan) | () | () | () | () | () | () |
| Other U.S. 1. PL480 Generations | | 2,300 | | | 16,430 | 16,430 |
| 2. | | | | | | |
| Host Country | | 400 | | | 2,200 | 2,200 |
| Other Donor(s) | | | | | | |
| TOTALS | 1,700 | 2,700 | | 7,611 | 18,630 | 26,241 |

| 9. SCHEDULE OF AID FUNDING (\$000) | | | | | | | | | |
|------------------------------------|-------------------------|-----------------------|---------|------------------------|---------|--------------------------------|---------|--------------------|---------|
| A. APPROPRIATION | B. PRIMARY PURPOSE CODE | C. PRIMARY TECH. CODE | | D. OBLIGATIONS TO DATE | | E. AMOUNT APPROVED THIS ACTION | | F. LIFE OF PROJECT | |
| | | 1. Grant | 2. Loan | 1. Grant | 2. Loan | 1. Grant | 2. Loan | 1. Grant | 2. Loan |
| (1) DFA | B233 | 090 | | 5,611 | | 2,000 | | 7,611 | |
| (2) | | | | | | | | | |
| (3) | | | | | | | | | |
| (4) | | | | | | | | | |
| TOTALS | | | | 5,611 | | 2,000 | | 7,611 | |

| | | | | | | | | | |
|----------------------------------------------------------------------------|--|-----|--|-----|--|----|--|----------------------------|--|
| 10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each) 060 | | | | | | | | 11. SECONDARY PURPOSE CODE | |
| 12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each) | | | | | | | | | |
| A. Code | | ENV | | LAB | | BR | | | |
| B. Amount | | | | | | | | | |

13. PROJECT PURPOSE (maximum 480 characters)

To develop and protect the soils and water resources of the project designated watersheds.

| | | | | | | | | | | | |
|---------------------------|--|----|----|----|----|-----------------------------------------|--|----|----|---------------------------------------------------------------------------------------------------------------------------------------|--|
| 14. SCHEDULED EVALUATIONS | | | | | | 15. SOURCE/ORIGIN OF GOODS AND SERVICES | | | | | |
| Interim | | MM | YY | MM | YY | Final | | MM | YY | <input type="checkbox"/> 000 <input type="checkbox"/> 941 <input type="checkbox"/> Local <input type="checkbox"/> Other (Specify) 935 | |
| | | | | | | | | 1 | 1 | | |

16. AMENDMENTS/NATURE OF CHANGE PROPOSED (This is page 1 of a 25 page PP Amendment)

| | | | | | | | | | | | | |
|-----------------|------------------------------------------|--|--|--|--|--|-----------------------------------------------------------------------------------|--|--|--|--|--|
| 17. APPROVED BY | Signature Thomas C. Luche | | | | | | 18. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION | | | | | |
| | Title AID Representative OAR/Praia | | | | | | | | | | | |
| | | | | | | | | | | | | |

PROJECT PAPER SUPPLEMENT
CAPE VERDE WATERSHED DEVELOPMENT PROJECT
(655-0013)

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TABLES AND CHARTS

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Annexes to the PP Supplement

1. Revised Logical Framework
2. Draft Project Grant Agreement Amendment and annexes
3. Draft Transfer Authorization for PL-480 Section 206 Commodities
4. Project Evaluation Summary
5. Justification for Waivers Requested

In addition to the above noted annexes to the Project Paper Supplement, readers are encouraged to consult the following documentation which was used in the preparation of this project amendment.

1. Lewis, John V.D., "Rapid Assessment of the Cape Verde Watershed Development Project (655-0013) with a Proposed Strategy for Its Extension"; Dec. 1987, Praia.
2. McLoughlin, Peter, F.M., "Economics Assessment of Santiago's Watershed Development Project"; April 1988, Praia.
3. Saunders, John et al., "Cape Verde Watershed Development Project (655-0013): MID TERM EVALUATION"; December 1987.
4. Steigleder, Steve, "SRFM Report of Financial Management and Reporting Systems of the Cape Verde Watershed Development Program"; (Draft report) April, 1988.

ACRONYMS AND DEFINITIONS

| | |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| CBWF | Community Based Work Fronts. New method for organizing temporary paid labors to carry out soil/water conservation program. |
| DFA | AID's Development Fund for Africa. |
| DGCSFER | Direccao-Geral de Conservacao de Solos, Florestas e Engenharia Rural (General Directorate for Soil Conservation, Forestry and Rural Engineering). |
| DOA 551 | Delegation of Authority to USAID Principal officers for most program implementation decisions. |
| EEC | European Economic Community. |
| EMPA | Empresa de Abastecimento (Importing and Marketing parastatal). |
| FAO | Food and Agricultural Organization of the United Nations. |
| FAS | Freight along side (vessel). |
| FOB | Freight on board (vessel). |
| GOCV | Government of Cape Verde. |
| INIA | Instituto Nacional de Investigacao Agraria (National Institute for Agrarian Research). |
| MDRP | Ministerio do Desenvolvimento Rural e Pescas (Ministry of Rural Development and Fisheries). |
| MPC | Ministry of Planning and Cooperation. |
| NDF | National Development Fund. |
| PWDP | Phased Watershed Development Plan. |
| PIO/C | Project Implementation Order/Commodities. |
| PIO/T | Project Implementation Order/Technical services. |
| PSC | Personal Services Contract (for AID personnel). |
| PL-480 Section 206 | Public Law #480 governing food aid. The "206" program allows the food aid to be monetized and used to support specified policy reforms. |
| RAP | Rural Assistance Program. |

| | |
|-----------|--------------------------------------------------------------------|
| REDSO/WCA | Regional Economic Development Services Office/West Central Africa. |
| S/WC | Soil and Water Conservation. |
| SAI | Sheladia Associates, Inc., Project-financed Contractor |
| TA | Technical Assistance or PL480 Transfer Authorization. |
| USAID | U.S. Agency for International Development. |
| WDP | Watershed Development Project. |

ACTION MEMORANDUM FOR THE COMPETITION ADVOCATE OF THE
OFFICE OF THE A.I.D. REPRESENTATIVE, PRAIA, CAPE VERDE

FROM: Murl Baker, PDO

DATE: June 21, 1988

SUBJECT: Cape Verde Watershed Development Project (655-0013)

PROBLEM: Under the authority granted to the Cape Verde Competition advocate contained in the Federal Acquisition Regulations (FAR) Part 6.304 and Part 706.5 of AID Handbook 14, your approval is required for a justification on other than full and open competition for a contractor under the Cape Verde Watershed Development Project (655-0013). In accordance with FAR Part 6.3 and Handbook 14, the discussion section that is found below follows the format required for approval of this justification.

BACKGROUND: The on-going Cape Verde Watershed Development Project (655-0013) combined a Development Assistance project with a PL-480 Title II, Section 206 program. It aims at strengthening the agricultural production potential of Santiago Island through labor-intensive construction of soil and water conservation structures. The project provides technical assistance in watershed development and program financing of watershed improvements. The combined project and program assistance has strengthened the capacity of Cape Verdean institutions involved in planning and executing the soil and water conservation program. Coupling technical assistance with construction program financing has led to more cost effective approaches in organizing rural work teams and making greater use of biological conservation techniques (reforestation) as a complement to the civil engineering works.

The subject project is being extended for two additional operating years with (a) a small increase in the level of PL480 commodities imported annually (15,000MT to 20,000MT Corn); (b) an extension of the technical assistance/training for that period of time; and, (c) additional construction material and equipment needed in order to extend the construction program for an additional two years.

The decision to extend the project for two operational years was justified on the grounds that: (a) the need for continued technical assistance and on-the-job training over a longer period of time than was initially anticipated; (b) the fact that conservation structures built with project assistance tend to be vulnerable to erosion, especially those located in the lower parts of the watersheds, and that this risk can be reduced substantially by continuing to implant conservation measures, especially vegetative measures, higher upstream in the watersheds; and (c) the additional two operating years added to this phase of the watershed development program will consolidate gains made and move toward less USAID management intensive types of assistance in the future. The mid-term evaluation (November 1987) supports this rationale.

DISCUSSION:

(1) Procuring Entity: Office of the A.I.D. Representative, Praia, Cape Verde (GAR/Praia). The proposed non-competitive extension of the technical assistance contract with Sheladia Associates is justified on the grounds that it is the only responsible source of technical assistance required by the projects extension and no other supplies or services will satisfy the project's and the agencies requirements.

(2) Nature of the action being approved: Non-competitive extension of an on-going technical assistance contract with a recently "graduated" SBA 8(a) firm.

(3) Description of the required services and supplies: 18 additional person months of two long-term technical advisor (hydrologist and forester) and approximately 12 pm of additional short term consultant services in various specialities related to watershed development and management.

Sheladia Associates was contracted to provide project financed technical assistance in October 1985 and the technical assistance team arrived in Praia in January 1986. The present contract with Sheladia terminates in January 1989. Under this contract, Sheladia Associates has provided a long term team of advisors to the ministry of Rural Development and Fisheries composed of a hydrologist/team leader, forester, engineer and extension/community development specialist. Long term technical assistance has been supplemented by short term consultancies in water and soil conservation engineering, watershed development planning and development methodologies and techniques. The mid-term evaluation notes the effectiveness of the technical assistance (both long and short term) that has been provided by Sheladia.

These contracted advisors to the Government of Cape Verde have been instrumental in the development and implementation of the watershed conservation program. The technical assistance team's inputs are evident in the stronger conservation structures that are being built today. Much greater use is being made of afforestation as a biological conservation measure. More efficient community development and organization concepts introduced by the technical assistance team are being applied to project's workforce. Program management and implementation plans are being introduced which monitor work progress and insure greater efficiency in utilizing program resources.

However, several of the key staff of the project's implementing organization are presently in long-term training and will not have completed their training and have taken up their intended functions by the present termination date of the technical assistance contract. The project amendment proposes that the technical advisors be extended and orderly phased out over the remaining life-of-project as Cape Verdean trainees return.

(4) Identification of the Statutory Authority requiring Other than Full and Open Competition: 10 USC 2304(c)(1) or 41 USC 253(c)(1) (Only one responsible source). (See FAR, Part 6.340-1.)

(5) Qualifications of the Contractor: Sheladia Associates presently has a team of two long-term advisors in-country. Both team members are amenable to extending their contracts for the additional amounts of time required by the project extension. Sheladia has existing roosters of qualified consultants, some of which have had previous experience on this project. Furthermore, continuity of effort and individuals is critically important for three of the major tasks remaining to be accomplished during the project extension. First, the computer facilitated program management and implementation monitoring will require continuity of the individuals involved in its programming while Cape Verdean staff become proficient in its operations and utilization. Second, the watershed development plans will require individuals familiar with the use of aerial photographs and who have a good understanding of what work has been completed on the watershed development plans to date. Third, the present conservation construction program uses an expanding amount of forestry or vegetative type controls developed with the assistance of the current forestry advisor for which continuity will remain important until in-house staff skills are developed.

(6) Solicitation of other offers: A short CBD synopsis will still be published.

(7) Market Survey: None.

(8) Other supporting facts: To achieve the institutional development objectives of the project, USAID will need to continue to provide the services of a hydrologist/program manager advisor, a forester and short-term consultants for an additional 18 months after the current technical assistance contract expires. There is not sufficient time between now and the time that the present contract expires to competitively select a new contractor or to select an 8(a) contractor to provide the desired services. Furthermore, the existing contractor has worked successfully with Host Country institutions to partially accomplish project objectives. Building on these established personal relationships and work in progress will greatly facilitate the achievement of several important project objectives: namely, the preparation of watershed development plans, greater use of biological conservation control measures and greater use of community-based work fronts. At best, changing contractors now will substantially increase the time required to successfully achieve these objectives or result in meeting only the very minimum specifications of project objective (less than desired increases in use of vegetative cover and community based work groups, etc.)

It commonly requires up to twelve months to competitively select a project technical assistance contractor as shown in the case of the Togo AEPRP and other projects within the region. In addition, the overall time required for fielding a team of technical advisors to Cape Verde is usually extended because of the need for fluency in the Portuguese language. Lastly, most technical advisors require between 6 to 9 months after arrival to become fully operational. With these lead times, it is highly unlikely that a technical assistance contractor could be competitively selected and field a team of competent advisors by the time the current technical assistance contract terminates (January, 1989). It is also unlikely that an 8(a) firm could be contracted and field an acceptable team of technical advisors in the timeframe required by the project.

If a new contractor were selected, a new team of advisors would be fielded. These advisors would require up to six months to become familiar with the project, the soil and water conservation work program, the Cape Verdean institutions involved and contract administration and management requirements. Fielding contractors for less than two years, increases the cost of providing the technical assistance required by the project by an estimated 25-40%. Furthermore, arrangements for interim technical assistance would also be required until the new contractor could field a team. These arrangements would add to the cost of acquiring needed project technical assistance, increase the management burden of the project on USAID/Praia and not provide the continuity which is important in terms of achieving project objectives. Amending and extending the present contract will result in important efficiencies of project resources and is the only reasonable source of the services needed to achieve the project objectives.

(9) Other sources expressing written interest in this acquisition:
None.

(10) Overcoming Barriers to Competition: The proposed contract extension will be for a period of two years or until the PACD of the project currently established to be December 31, 1990. It is anticipated that follow-on assistance will be structured along sector assistance lines and that a contractor will be competitively selected for the provision of the needed technical assistance after the period of this project. USAID/Praia needs to take no other actions to overcome barriers to competition.

RECOMMENDATION: Given the increased cost of, and expected mobilization schedule involved in selecting a new contractor for technical assistance services under the subject project and the critical need for continuity of the technical assistance team in meeting certain project objectives, it is recommended that you approve this justification of other than full and open competition by signing below.

Approved: Willie C. Lambert

Disapproved: _____

Date: July 29, 1988

Name and Title of Approving Officer:
Thomas Luche, A.I.D. Representative
Office of the AID Representative, Praia

Project Officer's Certification: The Project Officer certifies that the technical information provided in this justification is complete and accurate to the best of his knowledge.

Signature: Willie C. Lambert Date: June 21, 1988
Murl Baker, PDO, REDCO/WCA

Contracting Officer's Certification: The Contracting Officer certifies that the justification presented above is complete and accurate to best of his knowledge. The Contracting Officer will negotiate with the contractor in accordance with all FAR and AIDAR cost principles.

Signature: Willie C. Lambert Date: July 29, 1988
Paul Neifert, RCO, REDSO/WCA

Additional clearances:

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PART I. Project Background and Rationale.

A. Phases of AID's Assistance to Watershed Development in Cape Verde.

The on-going Cape Verde Watershed Development Project (655-0013) combined a Development Assistance project with a PL-480 Title II, Section 206 program. This unified project replaced two earlier projects with similar objectives: the Watershed Management Project (655-0006) and a Food for Development program (655-PL01). Both of these earlier projects aimed at strengthening the agricultural production potential through labor-intensive construction of soil and water conservation structures. The Watershed Management Project provided technical assistance and program financing for a limited number of watershed improvements with project dollar financing, while the Food for Development constructed a number of soil and water conservation measures exclusively through rural employment funded by local currency generated from the sales of PL480 commodities. Combining the two activities has enabled the project to expand the area covered and broaden the scope of the technical activities thereby leading to the improvement of the soil and water management of the watersheds. The combined project also strengthened the capacity of Cape Verdean institutions involved in planning and executing the soil and water conservation program. Coupling technical assistance with program financing has led to more cost effective approaches in organizing rural work teams (community-based work fronts as differentiated from traditional work crews) and making greater use of biological conservation techniques (reforestation) as a complement to the civil engineering works. Combining these assistance modalities has substantially improved the conservation program planning and management capacity of the Ministry of Rural Development and Fisheries (MDRP), improved the effectiveness of the conservation program and expanded the target areas covered by the program. In spite of these accomplishments, however, improvements need to be made especially in the area of program planning and management before technical assistance to the project can be eliminated without negative impact on past achievements and on-going project activities.

As outlined in the Small Program Strategy Statement (SPSS) revision currently being prepared for Cape Verde, USAID/Praia expects to continue assistance to Cape Verde to stabilize its Sahelian environment and increase its agricultural productivity. USAID plans to consolidate previous project assistance in food crop research and watershed development. Future assistance will include limited amounts of technical assistance and training that fosters a more coordinated approach (linking research, extension and natural resource management) to the phased development of watersheds and encourages greater participation of area farmers in maintaining and utilizing watershed resources. Future phases of project assistance will focus on maximizing the returns to labor from the extensive investment in soil and water conservation, flood control, reforestation and crop production research. A major objective of the next program phase will be the integration of export and cash crops into the smallholder production system in project assisted watersheds. The on-going Food-for-Peace program will be required for the foreseeable future, until Cape Verde is able to import food commercially without placing impossible financial strains upon its external accounts. The food aid program will continue to function as balance of payment support, enabling non-inflationary domestic investment to continue in watershed development and natural resources management. Broad training programs will also continue to improve the quality of agricultural technicians and the productivity of the agricultural labor force.

B. Proposed Project Extension and Modifications.

The proposed project modifications are to extend the present assistance for two additional operating years with (a) a small increase in the level of PL480 commodities imported annually (15,00MT to 20,000MT Corn); (b) an extension of the technical assistance and training for that period of time; and, (c) additional construction material and equipment needed for extending the construction program for an additional two years.

Specifically:

- The PACD will be extended from 06/30/90 to 12/31/90 to bring the PACD in line with the end of the 1990 program year of the Cape Verdean institutions implementing the project.
- The authorized LOP AID project financing will be increased from \$5,611,000 to 7,611,000 in accordance with the Project Financing Plan summarized in TABLE 2.
- The Transfer Authorization No.659-444-000-5608 will be amended to add 20,000MT of corn to the agreement for US Gov't FY1989 and FY1990. (Note: The TA amendment will, based on AID/W advise, not be effected until FY 89.)
- Approve a Project Paper supplement which modifies the program implementation plan and increases inputs to improve project performance and attain project goals and objectives.

With respect to the PL-480 Title II, 206 program, the amended Transfer Authorization will (a) extend the program for USG FY 89 and 90; (b) increase the level of imported corn (or corn equivalents) from 15,000MT to 20,000MT per annum for FY 89 and 90; (c) clearly exempt all future food donations from customs and duties; (d) simplify reporting requirements for both food imports and LC generations and use; (e) adjust selling prices of imported maize to levels closer to the world market prices and (f) establish better financial management procedures for monitoring local currency uses. In addition to these modifications in the transfer authorization, USAID/Praia has requested repayment of customs duties inadvertently paid under earlier food donations from the GOCV and will continue to use the Sahel Regional Financial Management Project to improve the management and monitoring of program commodities and the financial resources which they generate.

With respect to the Watershed Development Project assistance, this PP Supplement will: (a) extend the PACD from 6/30/90 to 12/31/90 to allow project assistance to be provided through the end of the 1990 program year; (b) extend the in-country technical assistance team for an additional year and augment the amount of ST technical assistance financed; (c) provide supplementary short-term training for adapting the staff skills of the Directorate General of Soil Conservation and Forestry (DGCSFER) to the needs emerging from the phased watershed development plans; (d) finance the procurement of conservation program materials (gabions, nursery bags); (e) finance the overhaul of the project's construction equipment and the procurement of equipped vehicle maintenance truck; and (f) finance the purchase of 3 field vehicles for the project implementing agency (DGCSFER).

Table 1. Summary Program Budget (Revised)

A. Watershed Development Project
655-0013

| <u>Budget Elements</u> | <u>FAA 121</u> | <u>DFA Appr</u> | <u>Project Total</u> |
|-------------------------|----------------|-----------------|----------------------|
| 1. Technical Assistance | \$2,495 | \$ 950 | \$ 3,445 |
| 2. Commodity Support | \$2,136 | \$ 800 | \$ 2,936 |
| 3. Training | \$ 555 | \$ 75 | \$ 630 |
| 4. Construction | \$ 170 | \$ 0 | \$ 170 |
| 5. Other | \$ 150 | \$ 25 | \$ 175 |
| 6. Contingency | \$ 45 | \$ 0 | \$ 45 |
| 7. Evaluation | \$ 60 | \$ 100 | \$ 160 |
| 8. Audits | \$ 0 | \$ 50 | \$ 50 |
| TOTAL AID PROJECT | \$5,611 | \$2,000 | \$ 7,611 |

B. PL-480 TITLE II SECTION -206 PROGRAM (For Illustrative Purposes Only)

| | <u>Authorized Deliveries FY85-88</u> | <u>(Requested) Increase FY89-FY90</u> | <u>Expected Total</u> | <u>Estimated Total Value (1)</u> |
|-------|----------------------------------------------|-----------------------------------------------|---------------------------|--------------------------------------|
| Corn | 60,000MT | 40,000MT | 100,000 | \$13,000,000 |
| Beans | 2,000MT | | 2,000 | \$ 1,102,000 |

LOCAL CURRENCY

GENERATIONS (\$000)

| <u>FY85-87</u> | <u>FY88</u> | <u>FY89</u> | <u>FY90</u> | <u>ESTIMATED TOTAL VALUE OF LC GENERATIONS</u> |
|----------------|-------------|-------------|-------------|----------------------------------------------------|
| \$8130 | \$2300 | \$ 000 | \$3000 | \$16,430 |

NOTES:

1. Does not include ocean shipping of food aid which represents costs of \$12,519,000 per revised Transfer Authorization.

C. HOST COUNTRY CONTRIBUTIONS (\$000)

| | <u>1985-87</u> | <u>1988</u> | <u>1989</u> | <u>1990</u> | <u>TOTAL</u> |
|---------------------------------------------------------------------------|----------------|-------------|-------------|-------------|--------------|
| GOCV salaries and support (estimated including inflation and contingency) | 925 | 400 | 425 | 450 | \$2,200 |

C. Rationale for Project Extension/Modifications.

The rationale for extending the project for two additional operational years with ancillary modifications of both the PL-480 program assistance and project assistance, is (a) the need for continued technical assistance and on-the-job training over a greater period of time than was initially anticipated; (b) the fact that conservation structures built with project assistance tend to be vulnerable to erosion, especially those located in the lower parts of the watersheds, and that this risk can be reduced substantially by continuing to build conservation structures higher upstream in the watersheds; and (c) the additional two operating years added to this phase of the watershed development program will consolidate gains made and move to less USAID management intensive types of assistance in a Phase III program to be designed and authorized in late FY90 and start in 1991.

In anticipation of extending the project, USAID/Praia carried out a mid-term evaluation of the project. Although less than incisive in recommending future strategies, the evaluation confirmed the need to continue making investments and improvements in the soil and water conservation program. Some of the key findings and recommendations are: Earlier conservation structures built before the technical assistance team's arrival tended to be weaker than those being constructed today although more systematic design and quality control are still needed. Reforestation efforts have grown substantially with the input of the forestry technical advisor. It was recommended that greater emphasis and investments should be made in the forestry component of the project. Program management both in terms of conservation results and in terms of efficient resource utilization have improved and continue to improve. However, several of the program management staff within the DGCSFER are absent in training and more junior staff lack experience and technical training. Technical assistance and training need to be continued for the revised life of project. Over the remaining 2-1/2 years of the project, the technical assistance element of the project will be orderly decreased as trainees return. The modifications proposed to the project are generally in accordance with the evaluation findings and recommendations.

John V.D. Lewis noted in his rapid assessment of the Cape Verde Watershed Development Project, conducted in December 1987, the importance of continuing the conservation program for an additional several years to preserve the structures which have been built by this and previous projects. Most of the constructed works are located in the downstream part of the watersheds, near the productive lands. Unfortunately, due to higher water volume, design and quality control limitations, damage sustained by structures built in this part of the watershed are also greatest. The valid case which Lewis makes is that the project urgently needs to put in place conservation measures further upstream of existing structures to diffuse the eroding impact of water runoff on downstream structures, thus reducing the risk of their collapse.

Lastly, USAID/Praia's program continues to evolve. The program strives for the merger of AID supported efforts in agricultural research with those in watershed development. Numerous technical as well as management-related advantages can be cited for consolidating these related activities. That consolidated program is expected to be approved in FY1990. In the meantime, however, it is important to build program management and strong implementation capacities into the Cape Verdean institutions involved in the longer-term effort.

PART II. Revised Project Description.

Annex A provides a revised logical framework for the project. The following sections provide a narrative description of the major changes being made in the project's conceptual framework.

A. Project Goal, Purpose and Expected Outcomes.

The project goal and purpose remain as stated in the approved project paper, namely:

GOAL: "to stabilize the natural environment and increase agricultural production potential in the project area".

PURPOSE: "to develop and protect the soil and water resources of the project-designated watersheds".

Presently, the project is working in 12 of an estimated 30 watersheds on Santiago Island and one watershed on the island of Santo Antao. While the original project paper called for working in 14 watersheds on Santiago Island, two small watersheds, located adjacent to Praia were dropped recently from the project due to scarcity of labor. (The forestry department has taken over tree planting in the former two small watersheds). Under the extension of the project, no new watersheds are expected to be added to those already receiving project assistance.

The types of activities supported by the project remain unchanged (resource management monitoring, soil and water conservation and integration of systems (conservation, extension and research) to effectively develop and maintain the islands' scarce soil and water resources.

The expected project outcomes or End of Project (EOPs) Indicators defined in the approved project paper are revised as per the following.

EOP 1. Watershed development plans prepared and used by MDRP.

REVISED EOP INDICATOR #1. Phased watershed development plans prepared and used by the MDRP.

DISCUSSION: To date watershed structures are planned principally by intuition and past experience rather than in accordance with well researched feasibility and engineering studies. While this traditional construction method increases the risks of structure failures, most of the work completed to date have been sound and the failure rate of completed structures is within a reasonable margin. However, recognizing the need for better watershed planning, Phased Watershed Development Plans (PWDPs) are being prepared which will guide future development of these watersheds.

PWDPs will be developed in two parts. Part one will consist of general indicative guidelines which cover pertinent aspects of watershed planning (i.e., soil, topography, hydrology, land use and population distribution considerations) while part two will consist of individual watershed plans for each of the 12 project-designated watersheds in Santiago island.

Additionally, the FWDPs will include drawings of typical check dams, gully plugs, embankment groins, catchment dams, etc. It is anticipated that these FWDPs will provide a more systematic methodology of watershed development planning as well as serve as a guide for developing the annual conservation/development work programs. It is important that these plans, in addition to treating the placement and sequencing of soil/water conservation works, deal also with maintaining conservation works and, to the extent possible, a more productive utilization of watershed's natural resources.

EOP 2. Data based justification of agricultural strategy developed.

REVISED EOP INDICATOR #2: The Food Crop Research and the Watershed Development Projects which will be merged to integrate the agricultural research, extension and conservation activities supported by AID over the past decade into a community-based phased watershed development program which focuses more on improving the production systems of peasants living in these watersheds.

DISCUSSION: This indicator was apparently to have been a result of the Food Crop Research project working in tandem with the Watershed Development Project. Unfortunately, such project linkages have not happened and it is not realistic to expect that this will happen during this phase of the project (the remaining two years of the project extension). However, USAID/Praia is encouraging the conduction of simple farm production surveys in selected watersheds covered by the project using resources other than this project assistance. Hence, this EOP indicator is revised to read as noted above.

EOP 3. Community based systems for maintenance exists for soil and water conservation structures.

REVISED EOP INDICATOR #3: Rural laborers organized into Community-Based Work Fronts for constructing, maintaining and utilizing soil and water conservation works will make up over 25% of program financed labor force.

DISCUSSION: Presently about 10 percent of the labor force preparing soil and water conservation works are organized as Community Based Work Fronts (CEWF) rather than the traditionally structured work crews of daily laborers. This increases community participation in maintaining the structures and improves the quality of work completed. The RAP contributes substantially to community-based maintenance and repair of conservation structures. In time (end of Phase III- 1995), the RAP workers are expected be integrated into community-based watershed development organizations or cooperatives. By the end of this project (Dec. 1990), a strategy will be needed to (a) define the role of the RAP program; (b) define the support it requires from the GOCV in maintaining conservation structures, production and conservation research, agricultural extension and rural production cooperatives and, (c) how the RAP can be integrated into local watershed development organizations. Cape Verdean NGOs and foreign PVOs will be encouraged to participate in supporting local watershed development organizations and cooperatives.

EOP 4. Reports to determine investment potential of completed watersheds.

REVISED EOP INDICATOR #4: Reports to determine investment potential of completed watersheds. These reports shall include at a minimum: (a) PWDPs; (b) Economic analysis of conservation techniques; and , (c) inventory of conservation works and costs per watershed.

DISCUSSION: The desired information on investment potential both in terms of investments in conservation technologies or in actual agricultural production, will be integrated as fully as possible in the phased watershed development plans. The project has prepared an economic analysis of the conservation structures and is preparing an inventory of completed works and their approximate costs for each of the watersheds. A survey of agricultural production potentials in the major watersheds of Santiago would be beneficial for the watershed development plans. USAID/Praia should continue to seek financing for such an assessment outside of this project.

It is the responsibility of the Project Administrator to monitor progress in achieving these EOP objectives and indicators and insuring that implementing organizations incrementally complete the steps necessary to achieve these objectives. This officer will use annual workplans and construction plans to insure appropriate actions are taken over the remaining two years of the project to insure these revised EOP objectives are achieved.

B. Revised Project Outputs.

Project outputs are normally defined as the tangible or measurable objects produced by the project (ie. DGSFER hdqtrs., check dams, km of rural roads etc.). The concept is also commonly used in describing less tangible project results such as improved staff skills mix and competencies, institutional capacities and management systems. Outputs are supposed to be under the complete control of the managers of the project. Managers are expected to allocate project resources to various outputs to insure that they are completed on schedule and as specified.

The project, as approved, listed 13 outputs and employment generation as an additional "intermediate output". The large number of program outputs has not facilitated project management and appears to have encumbered the analysis of the project evaluation team. In the redesign of this project, outputs have been respecified and regrouped into fewer output categories. Outputs 10 and 11 in the original PP have been incorporated into EOPs and deleted as outputs. The revised output categories follow:

OUTPUT 1. Soil and Water conservation structures and technologies implanted within the 13 watersheds now covered by the project. The technical specifications of the types of work to be completed have been operationally redefined to reduce confusion over definitions and terminology. Quantities have been modified to indicate expected cumulative levels of work completed by the revised PACD (Dec. 1990).

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Specifications of quantities of work have been changed to show measurements in M3 rather than linear measurements wherever appropriate. Revised output specifications for conservation works to be completed over the extended life of the project follow:

A. Treat with biological control measures 8,500 hectares of project watershed. This will entail planting of approximately 3,500,000 trees interspaced where possible with pigeon peas and improved pasturage. Planting sites will be prepared using simple earthworks - ditches and small basins to decrease runoff and erosion, resulting in increased water infiltration. The 3.5 million trees will provide firewood and animal fodder. The trees will be of appropriate species suitable to the environmental limitations and resistant to drought. Other vegetative contour plantings will include pasture and other crops such as pigeon peas, aloe vera and sisal.

B. Treat approximately 1,000 hectares with rock-stabilized structures - These are rock walls built on a contour and back-filled by earth to control erosion and increase water infiltration. Adequate treatment should be achieved at approximately 10 meters spacing.

C. Construct 3,000 dikes/check dams/gulley plugs - These are rock wall structures constructed of dry masonry, mortar or gabion which are built in river beds and tributaries to "check" the flow of runoff water. Their main purpose is torrent control and channel stabilization.

1) dikes are generally built at an average size of over 100 m³.

2) check dams are generally built at an average size of 40 - 100 m³.

3) gulley plugs typically measure up to 40 m³ in size.

D. Install 4,000 linear meters of embankment groins and longitudinal walls - Built with rock-filled gabion cages, embankment groins and longitudinal walls are built to protect farmland, irrigation systems, and roadways as well as to control flow in major flood channels.

E. Construct 20 subterranean catchment dams, including the construction of 20 Reservoirs and 20 kilometers of primary water conduction works. Stone and masonry catchment dams are designed to "catch" subterranean or bed flow water and make it immediately available for agricultural and animal uses. Sizes and designs vary according to the topography, geology and hydrology of the particular construction site. Reservoirs are large surface stone and masonry structures built to retain water for irrigation use. Under the project, reservoirs are designed to complement subterranean catchment dams and as water storage tanks at higher elevation to permit gravity fed water flow. Primary water conduction works are irrigation canals and PVC pipes used to carry water from captation sites or storage reservoirs to agricultural areas.

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OUTPUT 2. Train six persons in U.S. degree programs and short-term, non-degree programs related to watershed development, conservation and resource management. (No change in this output) See Table 3 for status of training activities.

OUTPUT 3. Community-based work forces organized to encourage community participation in conservation activities, maintaining conservation works and eventually promoting greater agricultural production from the improved natural resource base. Methods and approaches for the community based work forces have been defined and the RAP program supports the development and growth of these community organizations. It is expected that by the end of the project approximately 25 percent of the watershed development labor force will be engaged in community based work fronts rather than the more traditionally organized daily laborer work crews.

OUTPUT 4. Build and equip two office buildings to meet the expanded watershed development needs. ("and equip" has been added to this output to cover vehicle and commodity support provided by the project to the DGCSFER).

OUTPUT 5. Prepare 12 Phased Watershed Development Plans which guide the further construction and implantation of conservation works, the maintenance and repair of these structures and a more productive utilization of the improved soil and water resources resulting from the conservation works. One PWDP will be completed in 1988, 5-6 will be completed in each of the subsequent annual work plans.

Output 6. Employment generation. Cumulatively over the life-of-project, approximately 240,000 person/months of temporary employment will be generated by the project. Paid temporary employment in rural areas is expected to total about \$12 million over the life of project. In providing this employment, the project will test the use of various incentives to increase the quality and quantity of work produced. The project will also strive to promote equal pay for equal work especially in regard to women engaged in various conservation activities.

C. Revised Project Inputs

Inputs for Watershed Development Program are from three sources: Project Assistance (Sahel Appropriation and DFA) will contribute \$7,611 million in grant funds over the life-of-project. Local currency generated by the sale of PL 480 commodities will amount to approximately \$ 14 million over the expanded duration of the project. Inputs of over \$1 million provided by the GOCV include personnel, office space, training facilities and staff and maintenance of project vehicles. Table 2 compares original input levels and the revised levels required to continue project operations for two additional years, until the end of calendar year 1990.

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Table 2: Methods of Financing

| | <u>Type of Assistance</u> | <u>Method of Implementation</u> | <u>Method of Payment</u> | <u>Estimated Funding</u> | | <u>Total</u> |
|----|---------------------------|--------------------------------------------|------------------------------------------|--------------------------|-----------------|--------------|
| | | | | <u>Current</u> | <u>Increase</u> | |
| 01 | Technical Assist. | AID Direct PSC | Direct Pay Direct Pay | 2,495 | 950 | 3,445 |
| 02 | Commodities | PSA PSC fees AID Direct | Bank L/Com Direct L/Com Direct Pay | 2,136 | 800 | 2,936 |
| 03 | Training | Direct Placement Host Country Agency | Direct Pay Direct Reimbursement | 555 | 75 | 630 |
| 04 | Construction | Fixed Amount Reimbursement | FAR | 170 | 0 | 170 |
| 05 | Other | AID Direct | Direct Pay | 150 | 25 | 175 |
| 06 | Contingency | AID Direct | Direct Pay | 45 | 0 | 45 |
| 07 | Evaluation | AID Direct | Direct Pay | 60 | 100 | 160 |
| 08 | Audit | AID Direct | Direct Pay | 0 | 50 | 50 |
| | | | Total | 5,611 | 2,000 | 7,611 |

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TABLE 3

CAPE VERDEAN PARTICIPANTS IN THE US
Watershed Development Project (655-0013)

| PIO/P | NAME | SPECIALIZATION | PROGRAM | | | TRAINING START DATE | EXPECTED TRAINING COMPLETION DATE |
|-------|-------------------------|--------------------------------------|---------|---|----|------------------------|--------------------------------------|
| | | | TECH | U | G | | |
| 50005 | Anjos, Carlos J. dos | Physical Geography | | X | | 11/13/85 | 08/90 |
| 60022 | Brito, Jose D. dos Reis | Water Resources Engineering | | X | | 01/06/88 | 05/92 |
| 60032 | Carvalho, Joao O.M. de | Remote Sensing | | | MS | 01/ /88 | 05/90 |
| 40312 | Cardoso, Placido | Grain Storage and Marketing | X | | | 06/08/87 | 07/87 |
| 40312 | Fernandes, Amelia | Grain Storage and Marketing | X | | | 06/08/87 | 07/87 |
| 60030 | Lima, Joao M. | Remote Sensing (aerial photo) | X | | | 10/02/87 | 12/87 |
| 50021 | Reis, Eduardo A.C. dos | Watershed Management, Hydro- logy | | | X | 08/11/84 | 06/89 |
| 50032 | Sabino, Antonio | Arid Lands conference | X | | | 10/11/85 | 11/85 |
| 60004 | Sabino, Antonio | Hydrology and irrigation Sci. | | | MS | 09/03/86 | 01/89 |
| 50014 | Dias, Carolino | Water Management and Runoff | X | | | 07/08/85 | 08/85 |
| 50014 | Frederico, Antonio | Farming Methods | X | | | 07/08/85 | 08/85 |
| 50014 | Fortes, Julio L. | | X | | | 07/08/85 | 08/85 |
| 50014 | Lima, Maria L. | | X | | | 07/08/85 | 08/85 |

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PART III. Revised Implementation Plans

A. Revised Management Plan

USAID/Praia has contracted with Sheladia Associates, Inc. (SAI) to provide technical services during the present phase of project activities. Given the relatively short period of time involved (less than 24 months beyond the present contract termination date) and the logistical complexities associated with fielding technicians, extending the present contract is the preferred method of obtaining the needed additional technical assistance for the project extension. Of course, all appropriate FAR and AIDAR competition regulations shall be followed.

The contractor will be responsible for the support of the long-term advisors (e.g., shipment of household effects and personal vehicles, international travel, utilities, etc.) with the exception of providing furnished housing and guard service. Housing, guard services and a small office and basic furnishing will continue to be provided by USAID/Praia using project resources. The long-term advisors will be entitled to allowances in accordance with USAID regulations and the Standard Regulations (e.g., post differential, Embassy health services, educational allowances, R and R, home leave, etc.). The short-term consultants will be entitled to the prevailing per diem during international travel and while in Cape Verde.

The USAID/Praia Agricultural Development Office (a position which has been unfilled for nearly a year) will be the responsible USAID officer for monitoring implementation progress and performing the various administrative functions which USDH staff must fulfill. The day-to-day project management responsibilities of USAID will be provided by the contracted Project Administrator. Additional support not available within the Mission such as legal, contracting and financial management will be requested from REDSO/WCA.

Specific Planning and Management Steps

To take the project through the end of the proposed extension, the following key planning and management steps will be taken:

1. Preparation of the Phased Watershed Development Plans. The PWDPs will be developed to guide the development of annual operational plans and provide guidance to program managers on multiyear and multiphase basis.
2. Set-up project monitoring and control system. A project monitoring and control system has been designed and is currently being tested to provide rapid reporting on project implementation. Through timely and thorough data collection and computerized processing, financial and output reports can be generated on a monthly basis to provide a measure of comparison between the planned and actual accomplishments. These reports will be used as the core agenda item for the monthly project implementation meetings.

3. Institution building. The technical assistance team will design and test appropriate microcomputer project monitoring systems and train Cape Verdean technicians in the collection and analysis of data as well as in the generation of appropriate management reports. Additionally, it is expected that returned participants with graduate degrees in hydrology, rural engineering and watershed planning and management will have acquired adequate skills to be able to utilize fully the recently installed Geographic Information System (GIS) as a principal watershed planning and management tool as well as make full use of the project monitoring reporting system now being put in place.

4. Contractor planning and reporting. The contractor will present annual plans of activities to be approved by USAID and MDRP before the beginning of each operational year (November). These annual contractor plans will specifically address institutional development objectives to be achieved during the remaining life of the project. The annual plans will be supplemented by implementation progress reports to be submitted on a semi-annual basis to USAID/Praia.

5. Committee Meetings.

a. Interagency Committee. The Interagency Committee will meet on a semi-annual basis to discuss coordination of the various GOCV agencies and USAID/Praia with respect to overall program implementation, including the PL-480 Title II, Section 206 component.

b. Technical Advisory Committee. The technical advisory committee comprised of various organizations involved with watershed-development activities will meet on semi-annual basis to discuss issues and share information of mutual interest with the intent of creating a greater coordination among complimentary development projects and programs.

With the above steps, the project will have adequate long- and short-range planning and management control to carry successfully through the end of the proposed extension. It is expected that these meetings will encourage better program coordination between the principle MDRP services involved in watershed development and rural cooperative.

B. PROJECT PROCUREMENT PLAN:

All procurement under this PP Supplement is financed under the Development Fund for Africa (DFA) and thus subject to the AID/W Procurement Guidelines issued April 4, 1988.

1. General Procurement Responsibilities:

a. GOCV: MDRP will be the implementing agency for this project. However, the only direct involvement of the Ministry in procurement financed by this project is expected to be in the execution of a host country contract for the services of a Procurement Services Agent (PSA). Host Country contracting will be in accordance with HBl, Suppl. B, and HB11.

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b. USAID/Cape Verde: Contracting for most project commodities and services will be undertaken by USAID/Cape Verde. USAID project staff will initiate procurement actions in coordination with MTRP. In those instances where contract costs will exceed the mission's contracting authority, the contracting will be completed by REDSO/WCA or AID/W. Procurement of project commodities and services by USAID/Cape Verde will be AID-direct contracting and will therefore be carried out in accordance with the Federal Acquisition Regulation (FAR) and AID Acquisition Regulation (AIDAR).

2. Procurement of Technical Services.

a. Technical Assistance Contract: Part of the increase in authorized LOP funding will be used to extend the technical assistance provided by an institutional contractor as estimated below:

| Long Term Advisors | Previous | Additional | Total Effort |
|---------------------------|----------|------------|--------------|
| 1) Hydrologist/T. Leader* | 36pm | 18pm | 54pm |
| 2) Forester | 24pm | 18pm | 42pm |
| 3) Construction Engineer* | 24pm | 0pm | 24pm |
| 4) Extensionist | 18pm | 0pm | 18pm |
| 5) Short-term Consultants | 36pm | 12pm | 48pm |

*(Note: Due to the unexpected departure of the project engineer, additional engineering services will now be required. These two positions will be monitored closely for the next two months to determine whether production control services required can be performed by the Hydrologist/Team Leader or whether the services of a construction engineer is more appropriate through the PACD. In the event that the latter is deemed more appropriate, the time allocated to Hydrologist/Team Leader will be switched to Construction Engineer position and the hydrological services required will be contracted from INIA.)

It is estimated that the above noted increase in the amounts of technical assistance to be supplied by the contractor will require an increase of the level of funds of \$735,000. The amount of the technical assistance contract with SAI is expected to increase from \$2,394,769 to \$3,129,769. In addition, certain contractor support costs such as housing, office space, utilities, etc. which were not originally contained in the SAI contract because they were provided on "in-kind" basis will be modified to allow the contractor to be reimbursed for such local support expenditures. Approximately \$75,000 will be added to the contract to cover contractor local support costs. Related to but outside the Technical Assistance Contract, USAID will continue to provide the contractor with housing and guard services. These costs administered directly by USAID are expected to cost \$20,000.

b. Project Administrator PSC: The project amendment will finance the extension of the Project Administrator personal services contract for the duration of the project. This contract extension for a period of an estimated additional 28 person months is expected to cost \$170,000.

| PSC | ACTUAL | INCREASE | TOTAL |
|----------------|----------|-----------|-----------|
| Jose Goncalves | \$99,000 | \$170,000 | \$269,000 |

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c. Evaluation/Audits: The project intends to finance an audit of the Watershed Development Project (including the PL-430 Section 206 program) after the improved financial management system is operational. The audit, estimated to cost \$50,000, is expected to be completed NLT November 1989. The non-federal audit will be contracted using one of the Regional Inspector General's Non-Federal Audit IQCs. RIG will be responsible for preparing the scope of work of the audit and management of the selected contractor although the audit will be financed by the project.

A final evaluation of the project is expected in November 1989, two years after the mid-term evaluation. This evaluation will focus on the impact of the project and make recommendations to USAID concerning continued assistance to phased watershed development. The evaluation is estimated to cost about \$100,000 and will be procured through a REDSO Project Design and Evaluation IQC or other appropriate contracting arrangements.

3. Commodity Procurement:

The authorized source/origin for commodities financed with funds provided by this PP Supplement is AID Geographic Code 935. However, procurement from U.S. sources will be maximized. As shown below, the total budget for commodities is \$800,000. It is anticipated that approximately \$640,000 of this amount will be procured from U.S. source/origin (Code 000).

The following illustrative list of commodities will be procured under this PP Supplement:

| | <u>Estimated Cost</u> | <u>Planned Source/Origin</u> |
|----------------------------------------------------|-----------------------|------------------------------|
| (a) Gabions (400 tons) | \$470,000 | U.S. |
| (b) plastic nursery bags | \$ 60,000 | U.S. |
| (c) spare parts (caterpillar) | \$100,000 | U.S. |
| (d) 4 x 4 maintenance truck and ancillary tools | \$ 60,000 | Britain/Japan |
| (f) 4x4 field vehicle | \$ 80,000 | Japan/Western Europe |
| (g) shelf-items | \$ 20,000 | Various |
| (l) PSA fees | <u>\$ 10,000</u> | U.S. |
| Total | <u>\$800,000</u> | |

4. Methods of Financing Procurements.

Commodity procurement will be by three methods:

(a) Procurement Services Agent: A host country contract will be executed with a U.S. procurement services agent for procurement of gabion cages, plastic nursery bags and caterpillar spare parts. PSA will be obtained in accordance with procedures of AID Handbook 15, Chapter 6. As an alternative, if appropriate justification exists a determination may be made to contract on a non-competitive basis with the PSA who has been used during earlier phases of this project. This decision will be made separately from the PP Supplement and an appropriate waiver prepared for approval and REDSO/WCA Concurrence at that time.

The PSA contract will specify, inter alia, procurement requirements, freight forwarding, consolidation of procurement, shipping, insurance, follow-up and reports as part of the PSA scope of work. Payment of the PSA fee will be by direct reimbursement by REDSO/WCA, WAAC. Payment to commodity suppliers (including transportation and insurance) will be by letters of credit issued against an AID/W established bank letter of commitment to the PSA's selected bank.

The PSA will follow the procurement procedures in Handbook 11, Chapter 3 (Host Country Contracting). The PIO/C to obtain the PSA contract and to reserve funds for the commodities will be prepared in accordance with Handbook 15, Appendix 5A.

Procurement will be initiated as soon as possible after signing of the ProAg amendment. The Regional Office of Procurement, REDSO/WCA can be called on to assist in implementing the procurement process. Procurement rules and regulations concerning competition, shipping, insurance and marking will be observed in conformance with AID handbooks.

(b) AID-direct procurement: It is anticipated that USAID/Cape Verde will procure the project vehicles and shelf items; Procurement will be in accordance with the FAR and AIDAR. In instances where the commodity contract will exceed the contracting authority of USAID/Cape Verde (\$100,000), the contract will be executed by AID/W or REDSO/WCA.

(c) Shelf-item procurement: Approximately \$20,000 is budgeted for shelf-item procurement. Shelf-items will consist primarily of locally available tools and agricultural supplies needed for the project. Shelf-item procurement will be in accordance with HBl, Suppl. B, chapter 18. However, the DFA procurement guidelines state that the HB 1B, Chapter 18, limitations on value of commodities procured from code 899 countries are not applicable to the DFA. All other shelf-item rules still apply.

Prices paid for locally procured commodities will be no more than the lowest available competitive prices and purchases will be in accordance with good commercial practices. Commodities on the local market that are imported from non-free world countries are not eligible for AID financing.

A specific PIO/C for shelf-items will be established to maintain account of the commodities procured and received under the shelf-item budget.

5. Transportation:

U.S. shipping will be required to the extent possible. However, due to infrequent U.S. flag carriers to Cape Verde, it is anticipated that substantial non-U.S. flag vessels will be used. In order to comply with the Cargo Preference Act, the PSA will be required to ship on U.S. flag and request a certificate of non availability of U.S. flag vessels in accordance with HBl, Suppl. B, Chapter 10, from M/SER/OP/TS on a case by case basis when U.S. vessels are not available.

6. Delivery Schedule: The PSA contractor will be informed of the delivery schedule in the PSA contract. Customs clearance and documentation requirements are established and have been in use under this project.

7. Special Commodity Requirements:

(1) All vehicles listed in paragraph C above will be of non U.S. source. This is necessary due to the lack of adequate maintenance, service and spare parts in Cape Verde for U.S. manufactured vehicles. Such local service and spare parts availability is essential for support of these project vehicles and does exist for non-U.S. manufactured makes.

(2) As part of this PP Supplement, authorization is given for the proprietary procurement of heavy equipment spare parts from Caterpillar. Caterpillar equipment is used in implementation of this project and thus the brand name spare parts are required to insure reliable and continuous operations of the equipment.

(3) The detailed Caterpillar spare parts list and specifications for the 4x4 maintenance vehicle and ancillary equipment will be developed by a short term consultant to the MRDP.

Gabion cages and plastic nursery bags have been previously procured and specifications for these commodities are available.

C. REVISED FINANCIAL PLAN.

Project Obligation Schedule.

| Budget Element | Cumulative Obligations | FY 1988 (planned) | FY 1989 (planned) | Total Planned Obligations |
|--------------------------|------------------------|-------------------|-------------------|---------------------------|
| 1. Technical Assistance | \$2,495 | \$650 | \$300 | \$3,445 |
| 2. Equipment/Commodities | 2,136 | 800 | | 2,936 |
| 3. Training | 555 | 75 | | 630 |
| 4. Construction | 170 | 0 | | 170 |
| 5. Other | 150 | 25 | | 175 |
| 6. Contingency | 45 | 0 | | 45 |
| 7. Evaluations | 60 | 100 | | 160 |
| 8. Audits | 0 | 50 | | 50 |
| Total | \$5,611 | \$1,700 | \$300 | \$7,611 |

D. REVISED PROJECT MONITORING AND EVALUATION PLAN

revised outputs will be monitored over the duration of the project. The SFER is setting up a microcomputer based management information system which will track physical works (including tree planting) completed and costs. Annual reports of the conservation program will describe annual and relative amounts of work completed in accordance with Project Output 1. The annual reports will also indicate the number of rural workers hired under the program and the amount of LC generations disbursed to rural workers as per Output 6. The annual reports will also show the percentage of the annual work force employed under CBWF arrangements rather than the traditional work force per Output 3. USAID/Praia reports periodically on participant training updates project training plans similar to Table 4. Progress in the execution of FWDPs will be reported on in DGCSFER annual reports and in SAI progress reports. Furthermore, semi-annual technical advisory meetings will be held to discuss watershed development plans which, in time, will play a

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greater role in program management and coordination. The Project Administrator will be responsible for insuring that implementation reports are received on a timely basis and will maintain a simple monitoring schedule showing the production of project outputs over time.

At the purpose level, several end-of-project indicators have been redefined. In summary form, they are:

1. Phased watershed development plans prepared and used by the MDRP.
2. Food Crop Research and Watershed Development Projects merged in a new project expected to begin in 1990 or orderly terminated.
3. Over 25% of program labor force working in CEWF supported by RAP agents and progressively moving toward incorporating both functions into broader scoped watershed development organizations.
4. Reports on the potential of further investment in watershed development.

USAID/Praia will actively participate in ensuring these activities are completed in a timely manner and will monitor and report on these activities in its semi-annual project implementation reports. The Project Administrator will be responsible for preparing semi-annual project implementation reports which, inter alia, summarize progress recorded in completing project outputs and a brief status report noting major accomplishments and problems in terms of the identified end-of-project indicators.

A final evaluation of the project is expected in November 1989, two years after the mid-term evaluation. This evaluation will focus on the impact of the project and make recommendations to USAID/Praia concerning continued assistance to the phased watershed development. It will assess the technical quality of the conservation program carried out to date and review the cost/benefit analysis of the works constructed. The evaluation will closely examine the technical soundness of the proposed FWDPs and the investment required to carry out those plans.

Section IV. Project Analyses Update

A. Cost/Benefit Analysis Update

A thorough economic analysis of the project was completed in April, 1988. The project's benefit/cost ratio is highly favorable even at a 15% discount rate. Direct project benefits from the biological control program are more firewood, more livestock from increased pastorage, and higher corn and bean yields. Direct benefits from the physical control program result from measurable increases in arable land trapped behind torrent control structures, the protection of irrigable land from scour and gully action, and the additional land brought under irrigation as a result of building captation dams and associated structures. A project

benefit, difficult to quantify, is the change in the overall project area water balance. The cumulative and interactive effect each year of planting an additional 600,000 - 700,000 trees, constructing 250 check dams, 3 captation systems, and 225 kilometers of contour rock wall terraces has been a gradual change in watershed characteristics. This is expressed in hydrologic benefits by a lower watershed coefficient (CN), less runoff, and more infiltration. Soil moisture is retained longer, discharge into wells and captation dams is higher which means more water for trees, pasturage, corn, beans, and high value crops under irrigation.

The benefits under the project result from physical and biological SWC measures working in tandem. Ground cover and canopies reduce soil splash and soil sealing. Torrent control structures and protection walls check the kinetic energy of spate flows and reduce scour. Soil which would ordinarily be lost to sea is captured behind small dams and later cultivated. The discreet benefit of a check dam amidst contour rock wall terraces, congo beans, and trees is both facile and misleading. The component measures working as a whole change the characteristics of the watershed. This slow, long-term conservation of the soil and water resources is the driving force behind the high present worth of project benefits.

B. INSTITUTIONAL ANALYSIS UPDATE

AID's design and evaluation documents prepared over the past decade with respect to this investment all call for more "coordination and integration" between the DGCSFER project staff and (a) national extension service, (b) agricultural research institute (INIA), (c) agro-meteorological reporting (AGRHYMET), (d) cooperative development (INC), (e) Junta de Recursos Hidricos (JRH) and (f) Agricultural Development Department (Fomento Agrario). As the 1982 evaluation of the watershed management project explained: "without the extension of adapted agricultural research findings on higher yielding agronomic combinations (packages of crop varieties, inputs, and cultivation techniques), the watershed management improvements are hard to justify economically."

Therefore, that evaluation concluded: "more coordination and integration with the agricultural research (INIA) and extension services is vital. Shadow services in these areas should only be allowed to develop within the project structure on a "pilot" basis. Since then, two facts have become abundantly clear:

(1) Coordination and integration have not happened. Difficult to achieve even under the best of circumstances, in Cape Verde qualified technicians in each of these services are already being over worked just to keep up with their own projects. Donors have to accept that Cape Verde is passing through a period of project specific management before it can afford the luxury of that vaguer objective which we call institutional development. Heads of services are using all of their best people at capacity in order to meet their own project implementation objectives. They are not yet staffed to the point that they can easily coordinate and integrate with other projects. Project directors, therefore, have had to take provisional measures. In the case of this WDP project, the "pilot" Rural Animation Program (RAP) has been quite successful. A national extension service might not have had the flexibility to innovate, and to meet the circumstances peculiar to this project, as the RAP has. A lean, tightly organized, hierarchical project implementation structure is still needed to accomplish project goals. Project management, if not previous designers and implementors, has long since recognized this.

(2) It would appear that the project's check dams, dikes, embankments and, especially, its trees are having a more positive impact on overall agricultural productivity than the 1982 WMP evaluation indicated. Therefore, an acceptable economic return on the project cost may not be as dependent upon "coordination and integration" with agricultural research and extension as was originally argued. This is a hypothesis to be tested as the watershed planning work proceeds. However, it is clear to the naked eye that the high-yielding silt land, behind the project's hundreds of new check dams and dikes, is sustaining more than four times the production than was previously to be found in those gullies and riverbeds. Likewise, contour embankments and rock walls are increasing surrounding corn and bean yields by much more than the 5% figure retained by the 1982 evaluation from the USAID/SCS research under that WMP activity.

For the remaining life of this project DGCSFER should concentrate on improving these watersheds in the most efficient way possible -- that is, by running a well-disciplined, well-synchronized operation. This tight ship approach to project implementation makes it difficult for the project direction to take time out to elaborate and implement coordination protocols with INIA, NES, INC or any other parallel service. DGCSFER has enough parallel tracks of its own to implement.

In saying that DSCSFER can be and should be counted on to implement all aspects of this project under its own authority, the author, by implication, is giving its capabilities a sound endorsement. Its ability to develop, absorb and realize creative solutions to new problems has been demonstrated with the RAP, the CBWF, the afforestation, and the performance contracting (e.g. Rui Vaz) initiatives.

Earlier in this report, it was noted that the RAP animators could be gradually absorbed, as cooperative staff, as their community workfronts evolve into local institutions more closely resembling a cooperative. The details of this evolution should be a major preoccupation of the design of a new, post-1990, project. The Project Director and the RAP Director are correct in maintaining that this might be a more feasible, socially sound and, most importantly, a potentially sustainable option to pursue.

In addition to helping the RAP Director, to oversee the rapid spread of the community-based workfronts, the technical assistance a la Gardiner/Bedolf, has been recommended for this local-level participation thrust of the project on conceptualizing, designing and programming the transition of these reconverted, community-based workfronts (CBWFs) into pre-cooperatives, capable of supporting at least their RAP animator.

The project's thirteenth watershed, Tarrafal de Monte Trigo, on Santo Antao island, has barely been mentioned in this report. Its isolation alone would seem to call for an alternative institutional approach to this watershed. Its remoteness from the sphere of project activities on Santiago could be turned to advantage. USAID should begin experimenting with PVO approaches for Cape Verde, on a pilot basis. Every USAID program should support alternative approaches to rural development. However, the effectiveness and dedication of the Cape Verdean government agencies make the pursuit of such an alternative seem unnecessary -- at least on Santiago. On Santo Antao, on the other hand, the remoteness of the project watershed provides a plausible opportunity for inviting PVO involvement if not during the proposed project extension, then under future phases of program assistance.

C. SOCIAL SOUNDNESS ANALYSIS UPDATE

The Cape Verdean peasantry of Santiago island perhaps can be best understood by looking back to comparative examples in the West Indies, rather than by looking over east to continental Africa. Centuries of slavery left the clan, which protrudes so conspicuously from the social landscape of West Africa, in shambles. Such genealogically-based institutions are not reconstituted quickly, particularly when the material conditions requisite to their proliferation (availability of new farmland for each new lineage segment) are not available.

As in the Antilles, Cape Verdean peasant society took its enduring form from the practices and orientations of the escaped slaves (marrons), who have been farming in unmolested freedom high in the remote hills for centuries. Vestiges of this longstanding marron tradition are easily found in Cape Verdean peasant culture:

- Governmental forms and hierarchical coalitions are reproduced only in ceremonial life (e.g. the "kings" and "queens" of the tabanca rituals) and are not observed in daily practical pursuits;
- Houses are not grouped together so as to better facilitate community life, but are scattered in smaller, extended family groups each on a separate hilltop with their doors and windows facing away from the nearest neighboring cluster;
- Only recently has a glint of any local consciousness of the public good been discerned in local or national government dealings with these clusters, otherwise the reciprocity has been kept as restricted as possible: work on public projects is forthcoming only if the pay is adequate and prompt; and
- pockets of peasant families, the rebelados, still behave as if they are marrons. Therefore, they seem to believe that if they come into too close contact with outside world, they might be whisked away again into slavery.

In this social context, the classical workfront was (and to a large extent, still is) the only way to launch the public project of watershed development and management. Laborers in these classical workfronts are not being asked to be motivated by the benefits which their work may provide to their farms. However, the fundamental assumption behind ten years of USAID financing to these classical fronts is that, as the impact of these benefits are felt, a perception of a community, if not a public good will come to be felt.

This assumption has proved to be correct as evidenced by the tenacity, durability and proliferation of the community-based workfronts. However, these community fronts have been carefully animated by the RAP system in localities, usually an upper watershed (montante), where neighboring families farm and only half the time own, the hillside land (sequeiro) right around them. Therefore, it has been quite clear to them from the beginning that the public good, which the CBWF workers are taking a (slight) cut in pay for, is really a community good and, as such, can affect their access to any private goods.

Besides the pooling of money that goes into the tabanca ceremonies, rural Santiagan communities have two other forms of mutual-aid association:

(a) The "djuda" work party (festive labor) where the unpaid workers do not necessarily receive an equal labor contribution from the beneficiary of the work, the latter be usually:

- someone who needs help and has no other way of getting it; or
- someone who has some kind of power in the locality by means of which he/she can command this aid.

(b) The "djunta-mon", on the other hand, is more reciprocal. It is similar to the exchange-labor institutions found both in West Africa and the West Indies. Rotating around, the "djunta-mon" works on equal amount of time in each member's field.

The RAP animation strategy deliberately appealed to the principles of the "djunta-mon", rather than those of the djuda, in trying to establish community-based workfronts. The RAP planners correctly perceived that the Cape Verdean peasants would not go very far in collective effort unless the reciprocity involved was spelled out quite precisely, up front, as is the case with all "djunta-mon". To ensure that these reciprocal understandings are observed, all "djunta-mon" are organized over a very small geographic area.

For the same reason, community-based workfronts are also quite confined in the spatial distribution of their membership. They are most effective in fostering a sense of community responsibility for a common slope, a gully, the catchment area for a water harvesting scheme (captation dam and reservoir), or, at a maximum, a sub-watershed. The next step will be to expand the organizing principals of the community-based workfront to the watershed as a whole.

Thus, there are strong signs of hope that the Santiago peasantry can be coaxed out of their historical isolation into a collective effort. The absence of collective corporate grouping among them now may prove, with time, as much an advantage as it now appears to be a disadvantage. Once the advantages of cooperation are felt, it is sometimes easier to establish the most effective kinds of groupings where none existed before because there are no conflicting loyalties to get in the way.

D. BENEFICIARY ANALYSIS UPDATE

Table I includes such data about pre-WDP USAID watershed management investments on Santiago. Tables II and III provide a fuller record of WDP outputs and costs through June of this year. When these costs are broken down by activity:

-the costs, per hectare benefit, of each type of improvement can be calculated;

-The efficiency of different workfronts, and of the foreman of each, can be measured and acted upon accordingly; and

-more realistic work plans can be prepared, revised and implemented.

As this planning exercise proceeds, however, it should be remembered that benefits and beneficiaries are not synonymous. Long-term ecological benefits to the water shed are only one of the considerations to be factored with a final work plan. Maintaining and, quickly, increasing the income stream to the beneficiaries in the watersheds is essential to a viable watershed management strategy.

If the project objective were purely to improve the environment, working from the top down appears to be the soundest approach. But for the environment to stay improved, the people in the watershed have to continue to protect it at their own expense. This, of course, they will only do if it entitles them to a better income.

The word "entitle" is the key development element here. Who pays and who benefits in watershed management? Right now we pay. We cannot continue to pay unless a scheme for weaning these beneficiaries off of our expenditures for their land management improvement. Such a scheme must be based on community (public/civic) organizations since the benefits of watershed management are public goods.

When the individual who pays is different from the individual who benefits, we are talking public goods. While the tree planter in the upper watershed may realize some benefits from the trees themselves, and while those trees may hold topsoil and fix nitrogen for his annual crops planted in the alleys (cf. living terraces) between them, the farmer irrigating bottom land below is also benefiting. Less flash flooding and runoff is attacking his precious irrigated land. Yet, even though he may benefit more, he is paying nothing for the tree planting, while the tree planter upstream, who may benefit less, is paying everything.

A public institution needs to be created between them, so that those who benefit can also share some of the costs of those benefits. And that institution must be more localized, more participatory, and less subsidized (by USAID) by the Cape Verdean National Government. The community-based workfronts may be the gem of a local institutional complex capable of managing this public good (a stable watershed) on behalf (and, therefore, under the control of) the local population. A possible scenario for such evolution has been described above.

Right now, most of the community-based workfronts are in the upper watersheds. How do we get the farmer of irrigated land (regadio) down below to tie into the collective good management principles underlying these CBWFs?

One effective way, which the predecessor projects seem to have inadvertently discovered, or backed into, is to build some cross channel dikes or longitudinal walls/groins downstream before adequately treating the upper watershed. These dikes/groins will catch enormous amounts of silt for a couple of years and then collapse, especially if they were incorrectly designed -- as was too often the case in the first place.

This sequence of events gives the downstream farmer the exhilarating taste of a tripling (or more) of his irrigated surface area. His income triples accordingly for a few years before the structure collapses. Then he is worse off than he was before. He wants to know why. He finds out that it is because his cousins farming (sequeiro) upstream have not been planting enough trees on the steep slopes around them. Pressure is brought to bear and a relationship between the upstream and the downstream farmers develops.

On a smaller scale, a public consciousness can develop between closer neighbors in a watershed. We have already seen how neighbors on a slope or below a gully can easily be brought together in a community-based workfront once it is recognized how each of their land management practices affects the other. Likewise, downstream one irrigating farmer may resist a cross-channel dike because he does not want his well covered over by the build-up behind the dam. Yet when that build-up gives him and his neighbor more bottom land to irrigate, then he can (in some, though not yet all, cases) be convinced to sacrifice his well for the public good. The public, in exchange, should help him dig a new well in the appropriate spot.

These local and watershed-long institutional dynamics should be taken into account as a watershed development and management work plan is prepared. Thus, while from a strictly environmental point of view it would be cheaper to start at the top and work down, local interest (and, therefore, eventual local absorption of project costs) cannot be stimulated unless attractive on-farm benefits are introduced into the sequence at an earlier stage.

Luckily, this has been the case in most of these project watersheds. Neither the ecologists or anyone else developed watershed development and management plans, so the politico-institutional inertia of the last ten years of project investments has directed them towards structures likely to give the quickest and most immediate return: downstream dikes.

Now that the vulnerability of those dikes to the neglect of the upper reaches of those watersheds has (equally dramatically) been demonstrated, a clamour for afforestation on the montante has been raised.

Women have relatively strong potential for development in this process: at least half of the members of a community-based workfront must be women. These women own land (though they do not inherit as much as men) and manage farms. Half of the RAP extensionists are women. However, women do seem to be cut out of the juiciest local benefit of this project: irrigation. Some way of integrating them into the skills, activities, and benefits of irrigated farming must be found. For the present it is exclusively guarded as a male domain.

There is one catch in this scenario for seducing the beneficiaries into an advocacy (and a local organization) for watershed management themselves. The catch is unequal land distribution. Only half of the residents in these watersheds own enough land to live off of. The other half rents or sharecrops. While a sharecropper may have an interest in improving land quality -- both he/she and the owner benefit -- the renter may not: his/her rent will go up. This constraint must be dealt with as part of the local institution building agenda of the community-based work groups and the RAP strategy.

ANNEX 1: Revised Logframe

ANNEX 1.

CAPE VERDE WATERSHED DEVELOPMENT - (655-0013) LOP Funding - \$5.611 million (DFA)
 LOGICAL FRAMEWORK \$7.8 million (PL480)
 PACD - 9/30/88

| NARRATIVE SUMMARY | OBJECTIVELY VERIFIABLE | MEANS OF VERIFICATION | IMPORTANT ASSUMPTIONS |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><u>Goal:</u> To stabilize the natural environment and increase agricultural production potential in the project area</p> | <ul style="list-style-type: none"> - Increased utilization of water for agricultural and domestic purpose - Increased agricultural production within project watersheds | <p>GOCV and International Donor Reports on food production</p> | <ul style="list-style-type: none"> 1. Long range U.S. and other donor assistance is consistent in policy direction and funding levels 2. Health, population and migration trends favor agriculture production |
| <p><u>Purpose:</u> To develop and protect the soil and water resources of the project-designated watersheds</p> | <p><u>End Phased Project Status</u></p> <ul style="list-style-type: none"> 1. Watershed Development plans accepted and used by MDRP 2. Phase out plans prepared for FCR and WD projects 3. Rural laborers organized into CBWF will make up more than 25% of program work force 4. Report to determine investment potential of watersheds complete | <ul style="list-style-type: none"> 1. Project Evaluations 2. Land use maps 3. USAID reporting | <ul style="list-style-type: none"> 1. Farmers will invest more in agriculture on secure land. 2. Project watersheds have potential for increased agricultural production. |
| <p>Output 1. Various soil and water conservation structures and technologies implanted.</p> <p>Output 2. DGCSFER staff trained</p> <p>Output 3. CBWF used on NLT 25% of construction program</p> <p>Output 4. Build and equip two offices for DGCSFER</p> <p>Output 5. 12 PWDP completed.</p> <p>Output 6. 240,000 person months of rural employment generated.</p> | <ul style="list-style-type: none"> -DGCSFER workplans and reports -project training plans and reports -DGCSFER/RAP activity reports -USAID project implementation reports -USAID Project reports and site visit -USAID Project files and DGCSFER -DGCSFER annual reports and progress reports. | <ul style="list-style-type: none"> 1. Project Evaluation 2. USAID/GOCV reports 3. Financial Records (EMPA, MEF, FND) 4. Contractor reports | <ul style="list-style-type: none"> 1. SWC technology appropriate for Cape Verde 2. Local labor exists in sufficient supply 3. Interagency cooperation realized |

OCFRAME (con't)

| NARRATIVE SUMMARY | OBJECTIVELY VERIFIABLE | MEANS OF VERIFICATION | IMPORTANT ASSUMPTIONS | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|----|-------|------|-------|----|------|-----|------|------|-----|------|------|------|------|------|-----|------|------|-----|------|---------------------------------------------------------------|
| <u>Inputs</u> | | | | | | | | | | | | | | | | | | | | | | | | |
| U.S. | <u>Part I</u> | <u>Part II</u> | | | | | | | | | | | | | | | | | | | | | | |
| A. PL480, Title II, Section 206 (local currency for salaries) | A. Budget 1. PL480 (see Financial Breakdown) \$7.8 million | B. Scheduling (millions) | 1. Approval and funding of DA and PL480 assisted components occurs in a timely fashion | | | | | | | | | | | | | | | | | | | | | |
| B. Development Assistance 1. Technical Assistance 2. Training 3. Commodities | 2. Development Assistance \$5.611 million 3. GOCV contribution \$1.1 million | <table border="1"> <thead> <tr> <th>Year</th> <th>DA</th> <th>PL480</th> </tr> </thead> <tbody> <tr> <td>1984</td> <td>1.611</td> <td>--</td> </tr> <tr> <td>1985</td> <td>2.0</td> <td>1.95</td> </tr> <tr> <td>1986</td> <td>1.5</td> <td>1.95</td> </tr> <tr> <td>1987</td> <td>.389</td> <td>1.95</td> </tr> <tr> <td>1988</td> <td>1.7</td> <td>1.95</td> </tr> <tr> <td>1989</td> <td>0.3</td> <td>1.95</td> </tr> </tbody> </table> | Year | DA | PL480 | 1984 | 1.611 | -- | 1985 | 2.0 | 1.95 | 1986 | 1.5 | 1.95 | 1987 | .389 | 1.95 | 1988 | 1.7 | 1.95 | 1989 | 0.3 | 1.95 | 1. USAID/Praia Project officer position is refilled promptly. |
| Year | DA | PL480 | | | | | | | | | | | | | | | | | | | | | | |
| 1984 | 1.611 | -- | | | | | | | | | | | | | | | | | | | | | | |
| 1985 | 2.0 | 1.95 | | | | | | | | | | | | | | | | | | | | | | |
| 1986 | 1.5 | 1.95 | | | | | | | | | | | | | | | | | | | | | | |
| 1987 | .389 | 1.95 | | | | | | | | | | | | | | | | | | | | | | |
| 1988 | 1.7 | 1.95 | | | | | | | | | | | | | | | | | | | | | | |
| 1989 | 0.3 | 1.95 | | | | | | | | | | | | | | | | | | | | | | |
| GOCV | | | | | | | | | | | | | | | | | | | | | | | | |
| A. Personnel, office space, recurrent costs, POI. | | | | | | | | | | | | | | | | | | | | | | | | |
| B. Training of rural assistance workers | | | | | | | | | | | | | | | | | | | | | | | | |

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ANNEX 2: Draft Project Agreement Amendment and Annex

AMENDMENT NUMBER FOUR

TO

PROJECT GRANT AGREEMENT

BETWEEN

THE REPUBLIC OF CAPE VERDE

AND

THE UNITED STATES OF AMERICA

FOR

WATERSHED DEVELOPMENT PROJECT

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ANNEX 3: Draft Transfer Authorization
for PL-480 Commodities.

DRAFT FOR DISCUSSION ONLY

TRANSFER AUTHORIZATION

UNITED STATES INTERNATIONAL DEVELOPMENT COOPERATION AGENCY
AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D.C. 20523

TRANSFER AUTHORIZATION

SECTION 206
FOOD FOR DEVELOPMENT

AID NO. 659-444-000-5,08

Executive Vice President
Commodity Credit Corporation
U.S. Department of Agriculture
Washington, D.C. 20250

Government of Cape Verde
Program Approval Dated: 2/20/85
Program Amendment Dated: _____
Program Title: Section 206
Watershed Development Project
Project: 665-0013

In accordance with the provisions of Title II, PL 480 (as amended), Section 1-201 of Executive Order 12220 and International Development Cooperation Agency Delegation of Authority No. 5, effective June 27, 1980, the Commodity Credit Corporation (CCC) is hereby authorized to transfer and deliver agricultural commodities to the Government of Cape Verde pursuant to the following instruction:

I. QUANTITY - Metric Tons not to exceed:

| <u>Previous Total</u> | <u>Increase</u> | <u>Total-to-Date</u> |
|-----------------------|----------------------------------|----------------------|
| 60,000 | 42,000 MT | 102,000 |
| USG Fiscal Year 1985 | 15,000 MT Corn | |
| USG Fiscal Year 1986 | 15,000 MT Corn | |
| USG Fiscal Year 1987 | 15,000 MT Corn 2,000 MT Beans | |
| USG Fiscal Year 1988 | 15,000 MT Corn | |
| USG Fiscal Year 1989 | 20,000 MT Corn | |
| USG Fiscal Year 1990 | 20,000 MT Corn | |

II. COMMODITY TO BE SHIPPED:

| <u>Code</u> | <u>Commodity</u> | <u>Amount</u> <u>(Metric Tons)</u> | <u>Estimated Value</u> <u>US Dols)</u> |
|-------------|------------------|---------------------------------------|-------------------------------------------|
| 044.0020 | Corn | 100,000 | 13,000,000 |
| | Beans | 2,000 | 1,102,000 |

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III. ESTIMATED OCEAN TRANSPORTATION COSTS: 12,519,000

All actual ocean transportation expenditure under this program, regardless of the estimated costs shown above, are to be charged to the appropriate Title II bilateral freight accounts provided through AID/SER/AAM/TRANS.

IV. SPECIFICATIONS:

A. Corn, USDA specifications, yellow #3 or better, in bulk with accompanying bags, needles and twine (BNT)

B. Beans, USDA specifications, Pinto, in 50 kg net weight bags.

V. SHIPPING INSTRUCTIONS:

A. Delivery schedule and port of discharge: Delivery each Fiscal Year, per Section I. above, to Praia and/or Mindelo as required.

B. Consignee: Empresa Publica de Abastecimeto (EMPA)

C. Send copies of Bills of Lading to :

1. Original and two copies to consignee via air mail.

2. Original and two copies to consignee accompanying cargo.

3. Original and two copies to U.S. Embassy, USAID, Praia, Republic de Cabo Verde, via airmail.

4. Original and (2) copies AID/SER/AAM/TRANS, Washington, D.C. 20523, Attn: Ioanna Jackson

D. Rights on cargo claims:

Irrespective of transfer to the Government of Cape Verde of title of the commodities pursuant to this transfer authorization, CCC shall have the right to initiate and prosecute, and retain the proceeds of, all claims against ocean carriers for cargo loss and damage arising out of shipments of commodities transferred or delivered by CCC here-in-under for which AID has contracted ocean transportation.

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VI. PROGRAM OBJECTIVES, USE OF COMMODITIES AND CONDITIONS OF TRANSFER.

The Commodities authorized herein are contributed by the United States Government (USG) to the Government of the Republic of Cape Verde (GOCV). Funds generated from the sale of these commodities will be used for soil and water conservation activities and closely related development activities related to strengthening Cape Verde's agricultural sector. The use of these funds will support program objectives described in the watershed development project paper (665-0013). The project will include development assistance to fund technical assistance, training, commodities and other project-related foreign exchange costs. This Transfer Authorization is, therefore, considered a part of the general U.S. supported assistance program. All local currencies that remained undisbursed on January 1, 1985 under TA 2606, approved June 1, 1982, shall be used in accordance with the provisions of this Transfer Authorization.

A. The GOCV shall admit all PL480 commodities into Cape Verde free of all customs duties and other fees as prescribed by A.I.D. Regulation 11, Section 211.7 (b).

B. With the concurrence of USAID and the approval of AID/W, the GOCV may substitute required PL 480 Title II commodities, on an equivalent value basis, for up to 5,000 MT of corn. Requests for any substitution will be made to USAID in writing and will contain a food needs assessment to support the request.

C. The GOCV may sell 100 percent of the commodity. The GOCV will communicate in writing to USAID for approval of the proposed selling price of the commodity and any future proposed changes in that price. In cases where the selling price is determined as a result of commodity sampling and grading done by EMPA, a copy of the grading report will be provided to USAID and USAID may request a resampling and regrading in the presence of a USAID official or by a disinterested party.

D. The GOCV shall support pricing levels that equal the local-currency value of the world market price of the commodities, based on a most favorable official exchange rate, plus costs incurred by EMPA, the consignee, in handling, storage and internal distribution. It shall be the responsibility of the GOCV to propose the selling price to USAID when submitting the annual request of commodities under this Transfer Authorization.

E. All local currency proceeds from the sale of commodities, less EMPA costs allowed below, shall be deposited with the National Development Fund (NDF). Cost allowed EMPA are:

1. EMPA, to pay authorized storage, handling and distribution of commodities throughout the country, may retain 2,110 Escudos per metric ton.

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2. EMPA, to cover indirect costs and margins incurred, may retain 600 Escudos per metric ton.

3. EMPA, to cover depreciation of silos and silo equipment, may retain 590 escudos per metric ton for commodities handled by the silos.

4. EMPA may not retain depreciation costs for PL 480 commodities other than corn.

F. EMPA may not change the charges stated in E., 1-3 above without the written agreement of USAID. In addition, EMPA agrees to permit USAID, or such certified accountants as USAID may choose, to perform such audits or examinations of accounts, accounting documents and other records as USAID may deem necessary.

G. Total funds from the sales of commodities, less deductions allowed in E. above, shall be transferred immediately by EMPA to the National Development Fund to pay authorized costs of project activities as agreed upon annually by USAID, Ministry of Rural Development (DGSCFER) and Ministry of Plan during preparation of the annual work plan. Those costs would include:

1. Costs of labor for soil and water conservation work as provided in the project paper, and long-term and annual plans of the national soil conservation service (DGSCFER). All wages paid for project activities must be on a basis for equal pay for equal work.

2. Salaries and support costs for local non-government-employee extension workers who organize and support community work fronts in project watersheds to accomplish the work in G.1. above.

3. Salaries and supplies for an Administrative Chief and other non-government-employee personnel (draftsmen, clerks, etc.) required at DGSCFER to assure headquarters support for the project.

4. Costs of local materials (cement, mortar, sand, rebar, nursery supplies, etc.) to accomplish the work in G.1. above.

5. Costs of fuel and lubricants for transport of materials and personnel essential to the accomplishment of project activities.

6. Costs of establishing and operating nurseries to provide planting stock for the forestry/agroforestry activities.

7. Support for an incentive program to be established within RAP to stimulate higher productivity and better quality of watershed development works.

H. The GOCV agrees to immediately activate a National Level Interagency Coordination Group to review and coordinate PL 480 and the watershed development implementation activities:

1. The Group will include representatives of Ministry of Plan and Cooperation (Bilateral Division), Ministry of Rural Development (DGSCFER), Ministry of Finance (NDF), EMPA and USAID.

2. The Group will hold one-day conferences quarterly (January, April, July and October) during 1988 and thereafter at least semi-annually (January and July) under the call and chairmanship of the representative of Ministry of Plan and Cooperation.

3. Each Group Conference shall have an agenda prepared in advance to include required reporting of NDF, EMPA, DGSCFER, the Project Contract team and the Bilateral Division of MPC. All reports will become a part of the official record of the conference and a copy of the record of the conference will be made immediately available to USAID/Praia. USAID may refuse to accept requests for PL 480 commodities if required reports are delinquent at the time of the request.

4. Reports to the Group will include:

a. A report by DGSCFER on work completed and extension work done as part of project activities and, as appropriate, on work planned for the following year (annual plan of work). This report may be part of one covering total activities of DGSCFER but project activities must be easily separable from that report.

b. Reports by EMPA on commodity status as outlined in Section XI, A.

a. A report by NDF on deposits and disbursements in the PL480 Section 206 activity.

5. The GOCV must submit an annual narrative and statistical progress report as required under Section 206, PL 480, beginning one year after arrival of the commodity shipment beginning FY 1985.

VII. PL 480 FOOD FOR DEVELOPMENT PROGRAM - Indicative Budget.

An estimated budget for planning purposes is in Annex A. Elements of the budget may change due to changes in commodity prices, exchange rates, and costs of storage, transportation and distribution of commodities. The GOCV and USAID will revise these estimates annually (for presentation at the first Group meeting of the year) to assure achieving the objectives of this project.

VIII. PROCEDURE FOR CONTROL AND ACCOUNTABILITY OF FUNDS.

A. Net funds from the sales of PL 480 commodities (sales less allowances for storage, transportation, handling costs indirect costs and depreciation as stated in Section VI,E) shall be deposited by EMPA into the National Development Fund, which will maintain records for separate accounting of the Section 206 proceeds.

B. The National Development Fund shall submit to USAID, through the National Level Inter-Agency Coordination Group, a quarterly or semi-annual statement on the funds deposited into the account and disbursed to the project. These reports will be checked against project progress reports submitted by the Ministry of Rural Development and their respective expenditures. At the end of each program year, project expenditure requirements will be compared to the sales revenue deposits to determine the outstanding balance, if any, to be credited to the account. Any remaining funds in the account will either (a) be credited to the subsequent program year, or (b) be programmed to other mutually agreed self-help activities.

C. If at any time an advance of funds, against PL 480 commodity sales, is required to alleviate the delays in payment of watershed development work, the GOCV will make available through the National Development Fund sufficient amounts of money to cover authorized project expenditures.

IX USUAL MARKETING REQUIREMENT

In order to assure that the provision of food pursuant to this Authorization will not displace usual marketing of the United States or disrupt world food prices or trade patterns, the international commercial purchase utilizing indigenous financial resources, not

less than the types and quantities of food set forth in the following table:

| <u>Commodities</u> | <u>Year</u> | <u>Metric tons</u> | <u>Source</u> |
|-------------------------|-------------|--------------------|---------------|
| Corn | 1983 | | |
| | 1984 | | |
| | 1985 | | |
| | 1986 | | |
| | 1987 | | |
| UMR for corn for FY88 | | | |
| Rice | 1983 | | |
| | 1984 | | |
| | 1985 | | |
| | 1986 | | |
| | 1987 | | |
| UMR for rice for FY88 | | | |
| Wheat | 1983 | | |
| | 1984 | | |
| | 1985 | | |
| | 1986 | | |
| | 1987 | | |
| UMR for wheat for FY 88 | | | |

X. SELF-HELP MEASURES

The GOCV, in compliance with its agricultural and food development policies and the self-help requirements under Section 109 of PL 480, will undertake self-help measures to improve the production, storage and distribution of agricultural commodities. Accordingly, the GOCV will undertake the following activities and provide adequate financial, technical and managerial resources for their successful implementations.

A. The GOCV will, before July 1988, adjust the selling price of PL 480 corn to make it equivalent to world market price levels.

B. The GOCV will, before July 1989, complete a food consumption and income distribution survey to identify groups in the population most vulnerable to malnutrition and assess the impact of food price increases on those groups.

C. The GOCV will, before the end of calendar year 1988, complete a long-range development plan for project watersheds.

D. The GOCV, as a means of attracting technical assistance for development activities, will put forth proposals for agreements with U.S. voluntary agencies, such as AFRICARE, OICI or WVRO, to provide staffing and resources.

ANNEX 1 to TA 5608

INDICATIVE BUDGET
[Rounded to escudos (1,000) with dollars (1,000) at 70 esc/\$ in parentheses]

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | Total |
|---------------------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-----------------------|
| A. Estimated revenue * | 272,341 (3,891) | 219,462 (3,135) | 289,995 (4,143) | 219,000 (3,129) | 292,000 (4,171) | 292,000 (4,171) | 1,584,798 (22,640) |
| B. Deductions by EMPA | | | | | | | |
| Handling & distribution | 20,045 (286) | 31,650 (452) | 31,650 (452) | 31,650 (452) | 42,200 (603) | 42,200 (603) | 199,395 (2,848) |
| Depreciation | 2,950 (42) | 5,900 (84) | 5,900 (84) | 8,850 (126) | 11,800 (169) | 11,800 (169) | 47,200 (647) |
| Indirect costs | 5,700 (81) | 9,000 (129) | 9,000 (129) | 9,000 (129) | 12,000 (171) | 12,000 (171) | 56,700 (810) |
| Total deductions by EMPA | 28,695 (409) | 46,550 (665) | 46,550 (665) | 49,500 (707) | 66,000 (943) | 66,000 (943) | 303,295 (4,332) |
| C. Net for watershed development activities | 243,646 (3,481) | 172,912 (2,470) | 243,445 (3,478) | 169,500 (2,421) | 226,000 (3,229) | 226,000 (3,229) | 1,281,503 (18,307) |
| D. Projected project expenditures ** | 176,861 (2,527) | 207,125 (2,959) | 147,500 (2,107) | 250,000 (3,571) | 250,000 (3,571) | 250,000 (3,571) | 1,281,486 (18,306) |

* Based on actual tonnages FY85-87; estimates for FY88-90 include increase in corn tonnage to 20,000 MT in 1989 and a 2 escudo increase in corn price from FY88 onward. The 1985 revenue includes 54 million escudos carried over from previous project.

** Based on actual expenditures 1985-87 only.

ANNEX 4: Project Evaluation Summary

CAPE VERDE WATERSHED DEVELOPMENT PROJECT - #655-0013
MID-TERM EVALUATION

November - December, 1987

EXECUTIVE SUMMARY

The Cape Verde Watershed Development Project (WDP) is well on its way to meeting or exceeding its quantitative goals for the construction of soil and water conservation structures, reforestation and employment generation. The use of local currency generated by the sale of P.L. 480 food to pay under-employed rural labor has been effectively integrated with technical assistance in achieving conservation goals. In addition to employment, the target population has learned valuable skills and has increased the productive potential of their land, increased potable water supplies and reduced flood damage. Recommendations have been offered which the evaluation team believes will enhance the contribution of the project to watershed development.

Project Authorization and Funding

| | |
|-------------------------------------|-----------------|
| Project Authorized: | June, 1984 |
| Technical Assistance Contracted: | October, 1985 |
| Technical Assistance Initiated: | January, 1986 |
| Technical Assistance to end: | January, 1989 |
| Project Assistance Completion Date: | September, 1988 |
| Extended PACD | June, 1990 |
| Technical Assistance Grant: | \$ 5,611,000 |
| Host Country Contribution: | \$ 1,384,000 |
| Funds from Sale of P.L. 480 Food: | \$14,800,000 |
| TOTAL: | \$21,975,000 |

Counterparts

The Ministry of Rural Development and Fisheries (MDRP) is the counterpart organization responsible for implementation of the WDP. Financial and managerial support is provided by USAID. The National Development Fund (NDF) provides local currency for payments to the rural workers and for the purchase of local commodities. The Ministry of Planning and Cooperation is the coordinating agency.

Technical assistance for project implementation has been provided by Sheladia Associates, Inc. This AID contractor began operation in January, 1986 using the services of long and short-term advisors. The major function of the technical assistance has been field supervision, training, extension work, monitoring and evaluation.

Go

The Problems Addressed

The Watershed Development Project addresses major environmental constraints on development in Cape Verde. This archipelago nation is affected by the Sahelian climate of continental Africa. In the past, the people have suffered periodic famines caused by droughts which exacted a heavy toll in lost lives. In addition to recurrent drought cycles, the normal rainfall is infrequent and erratic, often coming in heavy downpours. The rugged landscape is either used for cultivation of staple crops, primarily corn and beans, or is subjected to denudation by overgrazing and collection of fuelwood and fodder. Steep slopes, inappropriate land use and aggressive rainfall together have led to severe erosion problems that have resulted in reduced productivity of the land. Rapid runoff of soil-laden water has caused downstream sedimentation and intensive irrigation in lowlands near the sea coast has contributed to saltwater intrusion.

Project Purpose

The purpose of the project is to protect and develop the soil and water resources in the project-designated watersheds, and thereby assist in reducing the underlying causes of food shortages in Cape Verde. This project will, among other things, focus on the protection of soil and water resources on Santiago and Santo Antao islands through the labor-intensive construction of soil and water conservation (SWC) structures by rural workers.

The development strategy adopted has been to build soil and water conservation structures in the watersheds in order to control erosion, increase water infiltration, create new agricultural land and control flooding. These structures consist of contour rock walls, check dams, catchment dams and groins, and water reservoirs. Tree planting and seeding of ground cover are the major non-structural measures for achieving soil and water conservation goals of the project. Nurseries have been developed to supply seedlings. An important element in the project's design is the Rural Assistance Program which provides, through members of local communities recruited and trained for the purpose, extension services in farming practices, tree planting, location and building of simple water control structures, and counseling in nutrition, health, child care and hygiene.

Methods of Evaluation

The mid-term external evaluation of the Cape Verde Watershed Development Project was conducted by an evaluation team composed of outside evaluators and Cape Verdean counterpart evaluators. The outside evaluation team consisted of a rural sociologist (team leader), two foresters from Tropical Research and Development, Inc., and a Food for Peace Officer provided by AID/REDSO. The Cape Verdean counterpart team was represented by a food aid/bilateral relations specialist (team leader), an engineer, an economist, one forester and a community development specialist. The evaluators worked together as a single evaluation team in the definition of the evaluation strategy, data gathering and analysis. Drafting of the evaluation report was the

principal responsibility of the outside evaluators. The outside evaluators arrived in Cape Verde on November 12, 1987 and departed leaving a draft report on December 10, 1987. The general evaluation team, comprising both the expatriate and the counterpart teams, addressed three major functional areas of the Project: soil and water conservation, forestry and the rural assistance program. The team visited eight representative watersheds on the island of Santiago among the 15 watersheds within which the Project operates in two islands in Cape Verde (Santiago and Santo Antao). Other places were also visited to observe the work of related project activities and to obtain additional information. Direct field observations were made, beneficiaries and Project personnel were interviewed, and project documentation and background literature provided to the team by USAID/Praia were consulted.

Accomplishments To Date

Substantial progress has been made toward accomplishing the goals and objectives of the Project. On the island of Santiago, for example, where the majority of activities has been concentrated, project-sponsored reforestation activities have accounted for 44 percent of the trees planted by all projects. Of equal importance have been the less-readily quantifiable activities which have contributed to development. Prominent amongst these is training which ranges from on-the-spot transfer of technology accomplished by RAP agents working with individual farmers to short courses for paratechnical personnel and, undergraduate and graduate degree programs abroad.

The establishment of the Rural Assistance Program coupled with the creation of the community-based work fronts has been a major factor in the successful achievement of Project goals to date. This organizational structure can be expected to serve as an important vehicle for rural development beyond the scope of life of the present project. Family members participating in the work fronts have improved the productivity of their land, learned valuable skills and earned badly needed income which, in turn, has been injected into the local economy where it has had a strong multiplier effect. The project accounts for more than half of the total rural income on the island of Santiago. In national terms, this represent approximately over one eight of the total wage earner population of Cape Verde.

Findings and Recommendations

From an overall perspective, watershed management interventions have been successful. Refinements and alternatives are suggested and some represent opportunities created by successes during the past two years. The linking of PL 480 and watershed development activities has proved to be a cost-effective mechanism for development project implementation. It is an assumption of the evaluation that the PL 480 program will continue and that watershed development activities will continue to have a high priority with AID and the GOCV beyond the 1990 PACD of this project. The major findings and recommendations below should be considered by

decision-makers in USAID and the GOVC. The body of the evaluation contains more detailed commentary of potential interest to technical implementation staff.

1. Future food production - It is a stated long-term goal of the Project to contribute toward reducing chronic food shortages in Cape Verde. A measure of progress will be the degree to which dependence on P.L. 480 food decrease in the long run. A success in this area also means that food sales and resulting funds available to support watershed development activities will also decrease. This leads to the need to identify those interventions with readily identifiable production benefits which are in turn feasible under minimal subsidy, such as "djunta-mao" reciprocal labor arrangements. Soil stabilization structures and multiple use tree plantings now offer the opportunity to introduce crops, crop management practices and animal production techniques which will both result in further production increases as well as contribute to the conservation of the soil resource.

Recommendations

- * Explore how the results of agro-forestry and farming systems projects elsewhere in Sahelian Africa could be applied to take advantage of advances in soil and water conservation.
 - * Take full advantage of opportunities to augment the use of irrigation in concert with improved crops and cropping systems. Irrigation to provide crop security during the normal planting cycle is generally more cost effective and socially equitable than dry season irrigation as a first step.
2. Investments in the public interest - Management of public lands in upper watersheds, flood control and prevention of salt water intrusion are all bonafide areas of public investment which farmers are unlikely to undertake because of the cost and lack of associated direct benefit. Tree planting in upper watershed areas should be examined carefully from a benefit/cost perspective. Tree planting is logistically difficult and costly per hectare in remote areas. If survival rates are high, growth rates acceptable, and the products in demand, then such plantings may be justifiable. Generally this is not the case. The upper watershed area in need of vegetative cover for erosion control is so vast that tree planting will not make a dent in the problem - needed first is success in fuel and fodder production on-farm where people have a vested interest in seedling survival. Then education in non-destructive livestock management and fuelwood collection in upper watersheds can be more successful. A soil conserving cover can begin to reestablish itself with minimal intervention, and planting efforts concentrated on the optimum sites.

Recommendations

* Determine if an optimum distribution of effort is being made in the use of scarce funds and trained leaders between works that will always have to be government financed and those which have the potential of becoming profitable activities for individuals or local organizations.

* In relation to the above recommendation - public works, such as roads having a diffuse benefit stream, should be performed by traditional work fronts, on a piecework basis if possible. Where benefits to individuals or groups within a defined community are evident, then community based work fronts should perform the work.

* Assure that conservation strategies are in tune with site-specific land tenancy.

* Assure that existing policies do not discourage project sponsored activities (if forest law states that trees are the patrimony of the state, then motivation to plant trees is stifled).

* Assess whether women's capabilities and activities are being effectively supported and whether women are receiving equal pay for equal work.

3. Importance of Measurement - The section of this evaluation on watershed monitoring mentions that the return to Cape Verde of a specific individual trained at the graduate level in hydrology is needed in order to install rain and stream gauges and analyze the resulting data. While true, the project could benefit immediately from establishing simple measurement experiments without the need for specialized training. The WDP represents a valuable model - of conservation practices, organization of people and innovative use of P.L. 480 funds. These experiences should be shared, perhaps through the Club du Sahel network. However, to do so will require documentation of results.

Recommendations -

- The use of marked stakes to measure soil erosion or accumulation in areas where conservation treatments have been applied, compared with untreated control areas.
- A thorough sampling of tree seedling survival over time, noting the apparent cause of mortality - grazing animals, drought, thin soil or improper planting.
- Trips to the field during major rainfall events to observe first hand the dynamics of water-borne soil movement and the effectiveness of erosion control measures. Field observations should be immediately compared with locally collected rainfall amount and duration data.
- The location of rain gauges at nurseries or rural schools using a

cooperating or paid recorder to establish a minimal information base, at least for major events.

4. Watershed development planning - It was found that the wide range of activities being implemented within the watersheds would yield a higher level of development benefits if activities were part of a more clearly defined watershed development and management program. Such a program would establish an appropriate sequence of activities, both geographically and in time, and an optimum level of emphasis that should be given to different tasks. A viable plan is based on a set of objectives rooted in a realistic assessment of what is physically, technically, socially and economically feasible.

Recommendations -

Using whatever maps and aerial photography available, have an experienced geomorphologist go into the field with WDP foresters and agronomists to identify problems and their solutions. The geomorphologist can rapidly apply battlefield triage to each watershed, indicating (a) what areas and processes are too costly to treat, (b) what areas are either not seriously degrading or which will recuperate with minimal intervention, (c) where to focus major project efforts in order to realize the most on-site and downstream benefits, and (d) what modifications in conservation techniques might be more effective.

- A thorough analysis of management options by a natural resource economist would assist greatly in providing additional criteria upon which to base WDP strategies for the future.

5. Planning and Coordination - Interagency Coordinating Group was originally envisioned as being essential to efficient project functioning and accountability. It has been found that effective communication among government departments with respect to complementary programs would be valuable to the WDP.

Recommendations -

- The evaluation concurs with the decision of AID to encourage the convening of meetings of the Interagency Coordinating Group at least quarterly in order to provide the opportunity for information exchange.

- Coordination in the elaboration of WDP annual plans in the framework of the five year rural development plan would contribute to greater recognition and potential for continuity beyond the project PACD.

- John Lewis, in his rapid assessment of the WDP in December of 1987 notes that government programs are stretched to the limits of their resources in achieving their own goals, making extra efforts associated with integration of programs not feasible. This perspective does not, however, preclude exchange of information between projects, program and agencies.

- Promote the coordination among donors agencies to assure compatibility among projects and minimum competitive stress on GOCV counterpart personnel.

6. The Rural Assistance Program (RAP) - The RAP has been highly successful, largely because of its flexibility, innovativeness and close linkages to the communities in which it works. Its 23 village level extension agents provided advice and guidance in the building of simple physical structures, nutrition, health, farming systems and aided in the management and supervision of community based work fronts that perform the labor on physical structures.

Recommendations -

- The evaluation team recommends that steps be taken to integrate the RAP into the National Extension Service. The reason cited is the real hazard that the RAP, which was created as part of the WDP, would be disbanded once the project is phased out.

- John Lewis's assessment advocates a opposite direction for integration; the gradual absorption of RAP animators, as cooperative staff, into the community work fronts.

7. Cultural assessment - It has been found during the project that community-based work fronts are more productive than the traditional work fronts and that there is a widespread interest in tree planting by individuals. It is recommended that more be learned about those aspects of Cape Verdean culture directly relevant to the effective motivation of people to participate in subsidized conservation and production activities.

Recommendations -

- Assess the actual and potential role of women in rural life; providing fuel and water, animal management, crop production, household gardening, food processing and decision-making.

- Evaluate existing attitudes and practices in the management of livestock and forest/vegetation resources.

- Assess skills and experience in soil conservation, especially in the construction and maintenance of terraces.

- Determine the effect of land tenure; particularly share cropping, holding size and degree of fragmentation; on participation in conservation of terraces.

- Establish the importance of community organizations in carrying out conservation and maintenance activities.

8. Benefits and costs - It is possible to say with confidence that project benefits exceed costs if we allocate the benefits

from government expenditure of local currency funds to income generation. Of more interest, however, is the benefit/cost relationship between increased food and fodder production, increased water supply and reliability, and flooding reduction on one hand, and overall local currency and dollar technical assistance expenditures on the other.

Recommendations -

- In forestry, measure - survival rate and growth increment of trees planted, values assigned to firewood, poles, fodder and fruit projected from planted trees, soil conservation benefits attributable to catchment dam (caldeiras) constructed and surviving trees, and the benefits attributable to reduced pressure on fragile upper watershed areas.
- In agriculture, measure increased area of potentially productive soil accumulated behind various infrastructural works, yield potential from increased irrigation capability, crop yield increase attributable to nitrogen fixing cover crops and to organic matter from tree leaves and cover crops, and actual increases in crop and animal production from treated areas as compared to control sites.
- Contract a resource economist well versed in calculating and monetizing conservation benefits such as those mentioned above. The first task of the economist will be to design monitoring strategies to provide more accurate measures for end-of-project calculations.

9. Computer Enhanced Aerial Photography - The photography of the Island of Santiago is nearly complete. The data base these photographs will provide is potentially useful to the GOCV as well as to donor agencies for project planning and implementation, especially in the area of watershed management planning and correlation of meteorological and hydrological monitoring data. A decision to extend photographic coverage to include the entire country is premature. Several questions are unanswered. What is the quality of the original photography? Will personnel be available to utilize the equipment and generate the information? Once the information is generated, will it be used effectively? Specifically, will watershed monitoring actually be carried out?

Recommendation -

- Delay further acquisition of aerial photography until the quality of existing photography has been evaluated, the feasibility of its use has been assessed and the contribution to achieving stated project objectives has been reevaluated.