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CLASSIFICATION

PROJECT EVALUATION SUMMARY (PES) - PART I

Report Symbol U-447

1. PROJECT TITLE South Pacific Regional Agricultural Development			2. PROJECT NUMBER 879-0267	3. MISSION/AID/W OFFICE USAID/SOUTH PACIFIC
5. KEY PROJECT IMPLEMENTATION DATES			4. EVALUATION NUMBER (Enter the number maintained by the reporting unit e.g., Country or AID/W Administrative Code, Fiscal Year, Serial No. beginning with No. 1 each FY) <u>879-90-01</u>	
A. First PRO-AG or Equivalent FY <u>80</u>	B. Final Obligation Expected FY <u>91</u>	C. Final Input Delivery FY <u>92</u>	6. ESTIMATED PROJECT FUNDING A. Total \$ _____ B. U.S. \$ <u>13.0 million</u>	
			7. PERIOD COVERED BY EVALUATION From (month/yr.) <u>1/1986</u> To (month/yr.) <u>2/1990</u>	
			<input checked="" type="checkbox"/> REGULAR EVALUATION <input type="checkbox"/> SPECIAL EVALUATION Date of Evaluation Review _____	

8. ACTION DECISIONS APPROVED BY MISSION OR AID/W OFFICE DIRECTOR

A. List decisions and/or unresolved issues; cite those items needing further study. (NOTE: Mission decisions which anticipate AID/W or regional office action should specify type of document, e.g., airgram, SPAR, PIO, which will present detailed request.)	B. NAME OF OFFICER RESPONSIBLE FOR ACTION	C. DATE ACTION TO BE COMPLETED
1. Project should be considered for funding for third and final phase.	E. Witt, USAID	1 January 1991
2. The research program and the crop production and soils science programs should be better integrated.	D. Osbourn, USAID	1 October 1990
3. The management of IRETA should be more operational (full-time director and Research Advisory Board).	D. Osbourn, USAID	1 December 1990
4. Financial services should be streamlined.	D. Osbourn, USAID	1 October 1990

9. INVENTORY OF DOCUMENTS TO BE REVISED PER ABOVE DECISIONS

<input type="checkbox"/> Project Paper	<input type="checkbox"/> Implementation Plan e.g., CPI Network	<input type="checkbox"/> Other (Specify) _____
<input type="checkbox"/> Financial Plan	<input type="checkbox"/> PIO/T	_____
<input type="checkbox"/> Logical Framework	<input type="checkbox"/> PIO/C	<input type="checkbox"/> Other (Specify) _____
<input type="checkbox"/> Project Agreement	<input type="checkbox"/> PIO/P	_____

10. ALTERNATIVE DECISIONS ON FUTURE OF PROJECT

A. Continue Project Without Change

B. Change Project Design and/or Change Implementation Plan

C. Discontinue Project

11. PROJECT OFFICER AND HOST COUNTRY OR OTHER RANKING PARTICIPANTS AS APPROPRIATE (Names and Titles)

12. Mission/AID/W Office Director Approval

Signature: John B. Woods

Typed Name: John B. Woods

Date: 5/4/90

SOUTH PACIFIC REGIONAL AGRICULTURE DEVELOPMENT

LIST OF RECOMMENDATIONS

Summary of Recommendations

- * USAID should fund a third phase of SPRAD that focuses on developing IRETA and its research, extension, and education activities into an effective, streamlined institution, and that USP/Alafua budget for future support to IRETA to assure sustainability.
- * SPRAD should continue to fund the ALO positions in Phase II and III. During this period, consideration needs to be given to absorbing the positions into a possible joint venture post between national governments (departments of agriculture) and USP/IRETA.
- * Strong consideration should be given to merging the teaching functions of agricultural extension and agricultural education for effective and efficient use of limited human and physical resources, and to support the proposed post graduate diploma and degree programs in agricultural education and extension, respectively.
- * Guided, in part, by this evaluation report and its complementary sustainability report, SPRAD should continue funding technical assistance (long term, short term, ad hoc) for the activities of extension/communication, education, crops, soils, agricultural engineering and library.
- * SPRAD should continue its support in Phase II and Phase III for technical assistance, training, and equipment for functional plant and soils laboratories for teaching, research, and outreach in the region.
- * SPRAD should continue and increase its support for the National Collaborative Trial (NCT) program in Phase II and III. USP Alafua should intensify its search for a qualified Project Coordinator for NCT and begin to institutionalize the position and program into its overall program.

- * A streamlined sustainable Curriculum Development Unit (CDU) should be funded in Phase III of SPRAD that takes advantage of the resources of the Communication Support Center of the Extension section.

- * Research at USP Alafua should become more interdisciplinary in its approach.

- * Crop production and soils sections should be integrated into a single section for effectiveness and efficiency in teaching and research at USP Alafua.

- * SPRAD should continue its support to the AIN system through continual funding of the Information Specialist for the remainder of Phase II and into the first two to three years of Phase III in order to institutionalize the position and the AIN system.

- * The Directorship of IRETA should be filled (preferably by a regional person) immediately by a capable person who is employed full-time with IRETA. This person should have authority over IRETA and its funding to sustain IRETA's gains under SPRAD and other donors.

- * USP Alafua's financial services system should be improved. If requested, SPRAD could assist in this process.

- * The present role of IRETA's Regional Advisory Board (RAB) should be reviewed and strengthened to make it, in reality, have an advisory and decision making role.

- * SPRAD should continue degree training for regional agriculturalists throughout Phase III, with possibly USAID maintaining a scholarship program beyond Phase III.

ACTIVITY 1:

Recommendations

1. SPRAD should continue to sponsor the ALO positions in Phase II and III. Gradual phase out of funding should take place during the life of Phase III. Over this period, the position may be absorbed into a joint venture post between the national government's department of agriculture, preferably extension. Provisions should be made by USP Alafua/IRETA to be prepared to continue funding the ALO position in the smaller island states through ongoing donor support and/or USP Alafua support. In the remainder of Phase II, immediate attention needs to be given to goals, models, time-lines, and agreements on the ALO position.
2. Strong consideration should be given to merging the teaching programs of agricultural extension and agricultural education for effective and efficient use of limited human and physical resources in these areas and to support the proposed post graduate degree in agriculture education.
3. SPRAD should continue long term TA support in this area for the remainder of Phase II and 2 to 3 years support in Phase III (short-term and/or ad hoc TAs as needed) to continue to develop, streamline and institutionalize the Communication Support Center for sustaining IRETA'S outreach capability. Consideration should be given to staff development, and streamlining IRETA publications into sustainable recognized IRETA series.

ACTIVITY 2:

Recommendations

1. SPRAD should continue to fund the ACTA program in Phase III with a view toward institutionalizing it into USP/SOA/IRETA program.
2. A master plan be developed for recruiting ACTA participants from island nations other than Fiji and Tonga.

3. The assistance of USP/SOA technical agriculture sections be sought in developing teaching materials for lesson plans for agricultural teachers in the region.
4. The feasibility of merging the Agriculture Education section and teaching component of extension should be explored to maximize human and physical resources, and to optimize sustainability.
5. A streamlined Curriculum Development Unit (CDU) should be funded in Phase III of SPRAD that takes advantage of the resources of the Communication Support Center of the Extension section and the proposed merging of teaching programs of these two activities.

ACTIVITY 3:

Recommendations

1. Provide one long-term (18-24 months) TA to establish an active research program and provide on-site training to faculty and staff in agriculture engineering. The TA should be in place toward the end of Phase II and on into Phase III, as applicable. Short-term and ad hoc TAs can be used after that to work on specific agricultural engineering research projects which have been identified as a priority within the region.
2. Provide a scholarship for one regional staff member to obtain a Masters degree in agricultural engineering in the U.S. for the purpose of returning to USP Alafua to provide assistance in agricultural mechanics teaching, research and extension.
3. Develop and implement policies and procedures to ensure the sustainability (including maintenance and security) of the agricultural mechanics laboratory. Also, limit use of laboratory, equipment (including power and hand tools), and supplies to instructional, research, and extension activities.

ACTIVITIES 4 and 5:

Recommendations

1. Combine crop production and soils (Activity 5). Crop production system research requires knowledge and understanding of both. Also, share responsibility of teaching BASIC courses.
2. Equip the soil's laboratory to handle all types of analytical needs for crop and soil research, as well as those from other agricultural areas, e.g. protein analysis of animal feeds. The Soil's Lab should be renamed the Plant and Soils Laboratory. Complete field laboratory to be able to handle "dirty" jobs such as drying and grinding tissues, and handling raw plant and soil samples, thereby keeping the analytical laboratory cleaner and more functional. Additionally, strengthen instruction laboratories in crop production and soil science.
3. Provide short-term and/or ad hoc TAs to address needs of setting up, operating and maintaining the Plant and Soils Laboratory.
4. Provide long-term and short-term TA's to maintain and strengthen existing research and extension activities where possible. Upon completion of existing long-term TA in crops, he should be replaced by someone with a strong background and interest in cropping systems. The objectives of this person would be to integrate the various aspects of production, including culture, soils, plant protection, marketing and economics. Concurrently, a new long-term TA in soils should be placed at USP Alafua when the current TA term expires. This new soils person should have a strong background in plant-soil relationships, more specifically, plant nutrition and soil chemistry. These two TAs would work together to integrate and streamline the new leaner Crop and Soil Section.

ACTIVITY 6:

Recommendations

1. SPRAD should continue its funding of the Information Specialist in the AIN system for the remainder of Phase II and into Phase III for institutionalization. During this time frame, USP/IRETA should explore other sources (donor, regional) of funding or other creative ways of sustaining this position in IRETA.
2. A study should be undertaken during the remainder of Phase II to develop a system of cost recovery (user fee perhaps) on some of its services to offset cost of high price journals, publications, CD-ROM subscriptions, etc.
3. Library linkages between the contractor (UHM) and the subcontractor (CU) and USP Alafua be formalized and strengthened for long term impact.

ACTIVITY 7:

Recommendations

1. A system be devised to ensure a more equitable distribution of workshops/seminars locations and participants from around the region. This system should also include a strategy for involving the three smaller islands (Niue, Nauru, and Tokelau) to participate (hosting and participants).
2. SPRAD (under IRETA) should continue funding of workshops/seminars in Phase III on a gradual phase-out basis. USP/IRETA during this period should look for and institutionalize other funding mechanisms for this activity.

ACTIVITY 8:

Recommendations

1. That the Pro Vice-Chancellor develop a plan and request (in the remainder of Phase III) SPRAD assistance to improve the financial services system at USP Alafua.

ACTIVITY 9:

Recommendations

1. USP Alafua should increase its efforts to hire a coordinator for this program immediately and institutionalize it in IRETA.
2. SPRAD support for this program should continue and be increased in Phase III. Strategies need to be developed by USP/IRETA during this period to secure a more stable source of funding for this important program.
3. Research in the National Collaborative Trials program, as well as research activity in general, at USP/SOA/IRETA needs to become more interdisciplinary in its approach to agriculture problem solving in the region.

ACTIVITY 10:

Recommendations

1. Develop a strategy to ensure that all of the island nations are given an opportunity to participate in the GRA program.

2. Allocate the remaining GRA positions targeting the crops, soils, and animal science.

ACTIVITY 11:

Recommendations

1. Alafua administration should review their scholarship allocations systems to ensure that the system used reflects a fair and equitable distribution.
2. That, in reviewing the current systems, consideration is given to:
 - a. Whether it is desirable or practical to allocate to countries a quota to assist their forward planning.
 - b. That countries with sources of scholarship grant do not benefit to the detriment of other countries.
 - c. That the smaller island nations be given special consideration.
 - d. That USP Alafua remain autonomous from pressure.

PROJECT ADMINISTRATION:

Recommendations

1. The contractor in the future should make every effort to provide the project with its own permanent full time faculty for long term technical assignments.

STAFF RECRUITMENT:

Recommendations

1. USP Alafua administration should update their current knowledge of incentives available.

2. Instigate dialogue with the secretariat of the government of Western Samoa to address the issues that constrain staffing at USP Alafua.

USP ALAFUA:

Recommendations

That USP Alafua secure the services of an experienced executive administration. The work description should be to define, upgrade, and introduce systems to effect efficient operations at USP particularly in the following areas:

1. financial management and accountability,
2. interfacing with Western Samoan Department of Foreign Affairs to fasttrack staffing constraints (e.g. tax scales, duty concessions, work permits, etc),
3. introduction of computer accounting from current manual system, and
4. staff training program for all administrative sections.

REGIONAL ADVISORY BOARD:

Recommendations

1. Monthly satellite linking up RAB members chaired by the Director of IRETA on an "open forum basis."
2. That the board members make early submissions of what they consider "key issues" so that the agenda for their meetings is known well in advance and reflects the issues the RAB wishes to address together with university inputs.

That any documents requiring RAB decisions be in the hands of the individual members at least 14 days before the meeting date.

4. That in the case of decisions effecting collaborative research that the papers be in the individual member's hands 21 days prior to the meeting.

IRETA:

Recommendations

1. That the position of Director be readvertised.
2. That the job description for the Director position be revamped to increase the scope of the post, the key wording being:
 - a. The Director will be responsible for the administration, monitoring and programming of regional research and extension operations;
 - b. The position will require substantial regional travel and consultation;
 - c. The Director will be expected to interface with donor agencies to solicit funding for IRETA;
 - d. The Director will report to the Pro Vice-Chancellor but will have a somewhat autonomous role within USP Alafua.
 - e. The scope of the Director's activities will be broad and it is envisaged that formal teaching will not be part of the Director's duties.

doc:146M
May 4, 1990

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XD-ABB-094-A

SOUTH PACIFIC REGIONAL AGRICULTURAL DEVELOPMENT PROJECT

MID-TERM EVALUATION

PHASE II

1986-1991

(AID PROJECT No. 879-0267)

WINFREY CLARKE

DAVID SASSEVILLE

GARRY COOPER

FEBRUARY, 1990

SOUTH PACIFIC REGIONAL AGRICULTURAL DEVELOPMENT PROJECT

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EXECUTIVE SUMMARY

Project Background

The South Pacific Regional Agricultural Development (SPRAD) project is an agriculture institution building project designed in 1980 to provide for up to 15 years of USAID assistance to the University of the South Pacific School of Agriculture (USP/SOA) and its associated Institute for Research, Extension, and Training in Agriculture (IRETA) located in Alafua, Western Samoa. SPRAD funding is a grant and contract. The University of Hawaii at Manoa (UHM) is the contractor and USP Alafua is the grant recipient. UHM is responsible for providing technical assistance to SPRAD. UHM subcontracts with Cornell University for selected technical services. Under the grant, USP Alafua is responsible for construction and upkeep of contractor staff housing, regional training, scholarships and program support.

The purpose of the project is to strengthen the capacity and resources in research, extension and education to:

1. develop and reinforce human resource skills needed for agriculture programs in the region that emphasize equitable social and economic development;
2. test, perfect and disseminate practical, cost-effective technologies through a visible outreach system, in collaboration with the respective national institutions which serve their agricultural communities.

Project designers assumed that achievement of this purpose would contribute significantly toward the broader goal of promoting agricultural productivity and further socioeconomic development for the rural people of the South Pacific region.

To achieve the project purpose at the end of the 15 year period, it was assumed that it would be necessary to produce during the life of the project the following major outputs:

1. An agricultural research, extension and education (REE) resource base in place at USP/SOA/IRETA capable of providing support to the respective island country agricultural development programs.
2. An established academic and in-service training program containing expanded and relevant course offerings, improved curricula, and skills development that will provide the region with the necessary human resource base adequate to serve the agriculture sector.

3. An operational system within USP/SOA where selected packages of appropriate technology in five major areas are available for use throughout the region and which can assist in increasing the productivity, improving the nutritional status, and/or in increasing the income of rural inhabitants.
4. A functional outreach program by the USP/SOA providing timely, continuing, and appropriate dissemination of agricultural information and services to national agricultural institutions, private sector, and community organizations.

To produce the foregoing outputs the project supports six distinct but mutually supportive activities:

1. Agricultural Extension/Communications
2. Agricultural Education
3. Agricultural Engineering
4. Crops Production
5. Soils
6. Library Services

In addition, project support is also provided to other activities which cut across all the above six activities. These are:

7. Workshops/Seminars
8. Scholarships
9. Regional Research Projects
10. Support Services

Evaluation of Phase II of SPRAD

SPRAD's first midterm evaluation (Phase I) was completed in May 1984. This evaluation recommended that the project should be continued into a second phase. This report is the midterm evaluation of Phase II of SPRAD. The evaluation was conducted December 1989-February 1990 by a 3-person team, two from United States land grant universities, and the other a regional inhabitant and consultant. The evaluation was supplemented by an AID parallel sustainability study of SPRAD.

The purpose of the evaluation was to:

1. judge the effectiveness of the USAID provided resources to date,
2. make a recommendation to AID management about the continuation of the project into its third and final phase, and
3. if so recommended, make suggestions about the priorities the third phase should address.

The study method of the evaluation consisted of visitations, interviews and discussions with project designers, implementors, and recipients (in and outside of the region). In addition, all pertinent documents (project papers, reports, evaluations, etc.) were reviewed.

SPRAD Achievements in Phase II

- * Modifications and improvements in agricultural courses taught in extension, education, crops, soils, and engineering at USP Alafua.
- * Increase in trained agricultural manpower in the region due to SPRAD sponsored scholarships, regional and national workshops and seminars conducted by IRETA.
- * Increased recognition (by national governments and other donors) of USP/IRETA's increased capacity and capability to deliver quality and timely outreach programs and research to the region.
- * Continual strengthening and expansion of the Agricultural Liaison Officer (ALO) network in the region. All eleven (11) island nations (served by USP/IRETA) have ALO representatives. ALOs are the two way communication link between USP/IRETA and the national departments of agriculture and other agricultural concerns in the region.
- * Establishment and expansion of the Agricultural Information Network (AIN) via print, radio, video medium, and satellite for rapid response to national requests for agricultural information.
- * Installation and refinement of desktop publishing, printing, and darkroom facilities at USP/IRETA for production of extension materials.

- * Continued expansion of USP Alafua Library as a computerized Information Resource Center capable of accessing information for distribution with the addition of linkages and computer capabilities with other databases (SPC, Guam, Dialog System, PEACESAT, CD-ROM (KIT and AGRICOLA)).
- * Expansion of funding and number of research projects of the National Collaborative Trial (NCT) program. The NCT program has produced a new cultivar of taro ("Alafua Sunrise") that is now being tested in on-farm trials in selected areas of the region. Also, a scab-resistant sweet potato cultivar for Tonga which has effectively replaced older non-resistant cultivars grown has been produced, and is now showing up in markets. *
- * Construction and equipping of a functioning agricultural mechanics instructional and research laboratory at USP Alafua.
- * Continual strengthening of the Advanced Certificate in Teaching Agriculture (ACTA) program to upgrade the skills and knowledge of agriculture science teachers in the region.
- * Construction of a screenhouse (a facility for conducting crop breeding and other research programs) and a field laboratory (shell building) for crop science teaching and research.
- * Advanced degree training (M.S. and Ph.D.) for regional staff in the areas of agricultural extension, education, crops, and soils.

Summary of Recommendations

- * USAID fund a third phase of SPRAD that focuses on developing IRETA and its research, extension, and education activities into an effective, streamlined institution, and that USP/Alafua budget for future support to IRETA to assure sustainability.
- * SPRAD should continue to fund the ALO positions in Phase II and III. During this period, consideration need to be given to absorbing the positions into a possible joint venture post between national governments (departments of agriculture) and USP/IRETA.
- * Strong consideration should be given to merging the teaching functions of agricultural extension and agricultural education for effective and efficient use of limited human and physical resources, and to support the proposed post graduate diploma and degree programs in agricultural education and extension, respectively.

- * Guided, in part, by this evaluation report and its complementary sustainability report, SPRAD should continue funding technical assistance (long term, short term, ad hoc) for the activities of extension/ communication, education, crops, soils, agricultural engineering, and library.
- * SPRAD should continue its support in Phase II and Phase III for technical assistance, training, and equipment for functional plant and soils laboratories for teaching, research, and outreach in the region.
- * SPRAD should continue and increase its support for the National Collaborative Trial (NCT) program in Phase II and III. USP Alafua should intensify its search for a qualified Project Coordinator for NCT and begin to institutionalize the position and program into its overall program.
- * A streamlined sustainable Curriculum Development Unit (CDU) should be funded in Phase III of SPRAD that takes advantage of the resources of the Communication Support Center of the Extension section.
- * Research at USP Alafua should become more interdisciplinary in its approach.
- * Crop production and soils sections should be integrated into a single section for effectiveness and efficiency in teaching and research at USP Alafua.
- * SPRAD should continue its support to the AIN system through continual funding of the Information Specialist for the remainder of Phase II and into the first two to three years of Phase III in order to institutionalize the position and the AIN system.
- * The Directorship of IRETA should be filled (preferably by a regional person) immediately by a capable person who is employed full-time with IRETA. This person should have authority over IRETA and its funding to sustain IRETA's gains under SPRAD and other donors.
- * USP Alafua's financial services system should be improved. If requested, SPRAD could assist in this process.
- * The present role of IRETA's Regional Advisory Board (RAB) should be reviewed and strengthened to make it, in reality, have an advisory and decision making role.
- * SPRAD should continue degree training for regional agriculturalists throughout Phase III, with possibly USAID maintaining a scholarship program beyond Phase III.

Lessons Learned

- * Institution building projects require donor support over a long period of time (15-20 years and sometimes longer) to insure sustainability.
- * Sustainability issues and mile stones (in projects in general and projects in institution building in particular) should be specifically designed into the project from the beginning, agreed upon, and evaluated periodically by all stakeholders to insure greater success.

I. INTRODUCTION

Project Background

The University of the South Pacific (USP) serves eleven island nations in the region (Cook Islands, Fiji, Kiribati, Nauru, Niue, Solomon Islands, Tokelau, Tonga, Tuvalu, Vanuatu and Western Samoa). Agriculture development in the region is constrained by the dispersal of islands over a wide area, by scarcity of trained people, and by lack of indigenous resources.

The South Pacific Regional Agricultural Development (SPRAD) project is an agricultural institution building project conceived in 1980 (Phase I) as an initial five year phase of an approximate 15-year effort to strengthen agricultural research, extension, and education at the University of the South Pacific School of Agriculture (USP/SOA) through its Institute for Research, Extension and Training in Agriculture (IRETA).

SPRAD is an USAID contract and grant project which was designed and implemented under Title XII with collaborative assistance made by the University of Hawaii at Manoa (UHM) (contractor), and Cornell University (subcontractor). UHM as contractor is responsible for the technical assistance aspects of SPRAD. USP Alafua receives a grant for construction and upkeep of contractor staff housing, regional training, scholarships and program support.

The goal of the project is to promote agricultural productivity and further socioeconomic development for the rural people of the South Pacific region. The purpose of SPRAD is to strengthen the capacity and resources of the USP/SOA in research, extension and education to:

1. Develop and reinforce the human resource skills needed for agriculture programs in the region that emphasize equitable social and economic development;
2. Test, perfect and disseminate practical cost-effective technologies through a visible outreach system, in collaboration with the respective national institutions which serve their agricultural communities.

To achieve the project purpose at the end of the 15 year period, it was assumed that it would be necessary to produce during the life of the project the following major outputs:

1. An agricultural research, extension and education (REE) resource base in place at USP/SOA/IRETA capable of providing support to the respective island country agricultural development program(s).

2. An established academic and in-service training program containing expanded and relevant course offerings, improved curricula, and skills development that will provide the region with the necessary human resource base adequate to serve the agriculture sector.
3. An operational system within USP/SOA where selected packages of appropriate technology in five major areas are available for use throughout the region and which can assist in increasing the productivity, improving the nutritional status, and/or in increasing the income of rural inhabitants.
4. A functional outreach program by the USP/SOA providing timely, continuing, and appropriate dissemination of agricultural information and services to national agricultural institutions, private sector, and community organizations.

To produce the foregoing outputs the project supports six distinct but mutually supportive activities:

1. Agricultural Extension/Communications
2. Agricultural Education
3. Agricultural Engineering
4. Crops Production
5. Soils
6. Library Services

In addition project support is also provided to other activities which cut across all the above six activities:

7. Workshops/Seminars
8. Scholarships
9. Regional Research Projects
10. Support Services

II. EVALUATION OF PHASE II OF SPRAD

SPRAD's first mid-term evaluation (Phase I) was completed in May 1984. This evaluation recommended the continuation of the project for a second phase. This report is the mid-term evaluation of Phase II of SPRAD. This evaluation was conducted from mid-December 1989 to mid-February 1990. In conjunction with the evaluation, a parallel study on the sustainability of SPRAD's efforts was conducted by a representative (Dr. Richard Hopkins) of the Management and Development Institute, University of Maryland, College Park.

The Evaluation Team

1. Dr. Winfrey S. Clarke, Agricultural Education/Extension Specialist and Team Leader.

Dr. Clarke is Director of the Office of International Agriculture Programs at Virginia State University, Petersburg, Virginia. He has extensive experience working in, managing, and evaluating international projects for USAID in Africa and South Asia.

2. Mr. David N. Sasseville, Agronomist (Horticulturist)

Mr. Sasseville is State Extension Horticulture Specialist/Principal Investigator at Lincoln University, Jefferson City, Missouri. He has extensive experience working in extension and research on food crops, particularly germane to small scale limited resource farmers.

3. Mr. Garry Cooper, Private Consultant

Mr. Cooper is a native New Zealander based in Niue Island where he has more than 20 years of experience of private sector investment in the region. Mr. Cooper has strong links with the agricultural sector, notably in the food processing, prepack development and export marketing of primary produce.

Summary of Evaluation Scope of Work

In summary, the evaluators were charged with the responsibility to:

1. judge the effectiveness of the USAID provided resources to date,

2. make a recommendation to AID management about the continuation of the project into its third and final phase, and
3. if so recommended, make suggestions about the priorities the third phase should address (see Appendix A for complete scope of work).

The evaluators were also to address two key issues. First, the impact of the project upon agricultural personnel in the region. Second, the ability of the region to sustain USP/SOA/IRETA at Alafua in the long term (complementing study by Dr. Richard Hopkins).

Evaluation Methods

The Team Leader visited and held discussions with Cornell University (subcontractor) officials, participant trainees from USP Alafua, and reviewed and collected appropriate documents during the period December 18-22, 1989. In route to the South Pacific region, Clarke, Sasseville, and Hopkins repeated the same procedure at the University of Hawaii, Manoa (SPRAD contractor) January 18-21, 1990.

During the evaluation team's visit to the South Pacific region, (January 22 - February 17, 1990), the following island nations were visited - Western Samoa, Tonga, Fiji and Tuvalu. While the team did not visit Niue, the regional evaluation team member (a Niue resident) gave the team an excellent perspective of the SPRAD effort in that country.

The visits consisted of discussions and interviews (group and one-on-one) with government officials of these nations, former USP/Alafua students, Agricultural Liaison Officers (ALOs), farmers (small and large scale), representatives of other donor agencies (FAO, UNDP, EEC, Australian and New Zealand aid), private sector organizations, the Pro Vice Chancellor USP/SOA, other USP Alafua faculty and staff, SPRAD TAs, USAID/Suva ADO and other staff, and a number of other knowledgeable and interested individuals (see Appendix B for complete list).

Structure of the Evaluation

Each of the six broad activities of SPRAD and the supporting activities were evaluated and recommendations made for Phase II and III. The results are reported in Sections III to IV. Sustainability issues (reviewed to a large degree by Hopkins, see Appendix C for summary and recommendations) are reflected to some degree in the recommendations.

III. OVERALL EVALUATION CONCLUSIONS, AND RECOMMENDATION BY ACTIVITY

Activity 1: Agricultural Extension/Communications

USP Alafua serves eleven widely dispersed island nations, each of which comprises several islands. Air and radio communications between capital cities are available but communication between islands within each nation is still extremely restricted. Agriculturists posted to such islands are entirely dependent upon the support given to them by their national or regional organizations.

The SPRAD project therefore assumed that strengthening extension/communication skills and developing an information network were vital to the development of the region's agriculture and essential for delivering research results.

The purpose of the extension/communication activity is to strengthen and further develop agricultural extension/communication as both a discipline and function of USP Alafua in order to improve the capacity and be supportive of agricultural extension, research and training activities in the region.

Progress to Date

SPRAD TAs (in this activity) have assisted USP/SOA regional staff in teaching the five formal courses in the degree and diploma programs. Modification and improvements in these courses have been made based on research by a former SPRAD TA. Lesson plans and teaching notes have been developed for current and future use. A proposal is currently being considered for a post-graduate diploma course in education.

USP/IRETA has been provided with overhead projectors (with instructions on their use and maintenance) for all classrooms and conference rooms. Equipment and instruction for developing audio-visual aids for teaching and presentations have also been provided.

The Agricultural Liaison Officers (ALOs) network (SPRAD initiated in Phase I) has continued to grow and be strengthened. The number of ALOs has increased. All eleven island nations (Western Samoa's ALO also serves Tokelau) have an ALO. In addition, the quality and quantity of information disseminated by ALOs have also improved. ALOs serve as the channel for two way communication between IRETA and the eleven agricultural departments.

The Agricultural Information Network (AIN) (established in Phase I) has continued to be strengthened through the upgrading of manpower (AIN Information Specialist, junior and technical staff). AIN is a system developed by this activity and the Library Information Activity to develop a rapid response to agricultural requests from the region (more about the AIN under the Library Information Activity).

National departments of agriculture staff have received non-formal training through regional and national workshops by IRETA. Twelve (12) workshops in Phase II were held for 243 participants representing ten (10) of the eleven (11) island nations served by SPRAD. Eight (8) formal training activities were conducted for 149 participants from 12 countries (Papua New Guinea also participated). In addition, 8 in-service activities were conducted for ALOs. Other donors have recognized the training capability of IRETA and have begun to award training contracts. FAO and UNDP have awarded such contracts in the area of extension program management.

Two (2) USP/SOA senior staff have received training under this activity in Phase II. One completed the Ph.D. (Cornell University) returned to head IRETA but since resigned (November 1989). The other candidate is still in training for an MS (Cornell University) and is expected to return December 1990. Short term training of junior staff printers, computer operators (support staff for producing IRETA publications) has also been given (see Appendix D).

SPRAD in Phase II has been the major sponsor of staff and equipment (desktop publishing, laser printers, and darkroom equipment) required to produce extension materials via print, radio and video media for disseminating in the region. With these improving capabilities, IRETA publications increased to 246 total issues and articles from 7 different publications (see Appendix E).

Radio facilities and programs in agriculture have been improved, resulting in better produced local programs. These are shared with local radio stations in the region for broadcast. Scripts are also provided so that the programs can be translated into the local languages for airing. Some of these programs have been provided for broadcast by Australian radio to the entire Pacific Region through its broader network.

A video unit has been incorporated into this section. Video equipment for taping and editing was provided by CTA. SPRAD provided the technical assistance under the Graduate Research Assistant (GRA) program. To date, the Video Library has 39 programs. Ten (10) IRETA video productions have been completed with 6 in production, and 5 documentation requests from USP/SOA faculty. In addition, 47 video tapes are on order.

The satellite capability of USP/IRETA under this activity has been strengthened for linkage with all the ALOs in the region for

weekly sessions (two hours per week). This has resulted in faster and better communications of ideas, information, and updates throughout the region.

Conclusions

The Extension/Communication Activity is well on track toward accomplishing all of its objectives by the end of Phase II. Many of these objectives have already been achieved. The SPRAD technical assistance provided for this activity has been excellent.

The staff development activities and the improved support systems for training (non-formal and formal), generating and disseminating information through the ALO and Agricultural Information Network (AIN) networks have positioned USP Alafua to make a positive impact on agriculture in the region.

Attention now needs to turn to sustaining these efforts. Training and employing individuals in a timely manner to key posts in this area is essential. The ALO network has been one of the key mechanisms developed by SPRAD to disseminate IRETA's outreach efforts. Presently, nine of the original ten ALOs continue to be funded by SPRAD. The Cook Islands national government has funded its ALO position. Also a proposal has been developed to have the ALO position under the office of Agriculture and funded by the government within the next two years. In the view of the evaluators, it appears that the most productive place (in the long-term) for the ALO is in the national departments of agriculture (where appropriate).

This will strengthen the links between USP Alafua and the national departments of agriculture in the region. Housed there, the ALO will be more informed of the needs and aspirations of the extension and research services, and the goals and objectives of the departments. This will also enable the ALO to forage links with other branches of government (education, planning, etc.). Through this network, these government departments and their heads will also benefit from improving outreach capability of USP/SOA/IRETA. The extension and communication efforts initiated under this activity must be begun to be institutionalized for the sustainability of IRETA.

Recommendations

1. SPRAD should continue to sponsor the ALO positions in Phase II and III. Gradual phase out of funding should take place during the life of Phase III. Over this period, the position may be absorbed into a joint venture post between the national government's department of agriculture, preferably extension. Provisions should be made by USP Alafua/IRETA to be prepared to continue funding the ALO position in the smaller island states through ongoing donor support and/or USP Alafua support. In the remainder of Phase II, immediate attention needs to be given to goals, models, time-lines, and agreements on the ALO position.
2. Strong consideration should be given to merging the teaching programs of agricultural extension and agricultural education for effective and efficient use of limited human and physical resources in these areas and to support the proposed post graduate degree in agriculture education.
3. SPRAD should continue long term TA support in this area for the remainder of Phase II and 2 to 3 years support in Phase III (short-term and/or ad hoc TAs as needed) to continue to develop, streamline and institutionalize the Communication Support Center for sustaining IRETA's outreach capability. Consideration should be given to staff development, and streamlining IRETA publications into sustainable recognized IRETA series.

Activity 2: Agricultural Education

Agriculture is of primary importance to the South Pacific region. It is the leading employer and the backbone of the economy. Agriculture in the secondary schools of the regions is not popular with many parents, teachers or students. If taught at all, it is usually relegated to the most junior teacher or teachers who are ill-prepared.

The feeling is that this kind of attitude will pervade the region for some time to come. It is also felt that reversal of this attitude can be accomplished by improving the teaching of agriculture in schools and raising the status of agriculture science to the level of the other subjects taught. Hence the Agricultural Education activity of SPRAD was developed.

The purpose of this activity under Phase II is to further develop and strengthen the teaching education program at USP Alafua in directions that will reinforce and expand the capability of vocational agriculture in the public/private schools of the region.

Progress to Date

The Advanced Certificate in Teaching Agriculture (ACTA) program (developed in Phase I by a former SPRAD TA) designed to meet an urgent need of agricultural teachers in the region, has been constantly strengthened in Phase II with indigenous teaching materials and examples. Since the inception of the ACTA program, 89 teachers (nominated by their governments) have enrolled. Seventy four (74) completed the program and 65 graduated (see Appendix F). The majority of the ACTA participants came from Tonga and Fiji, 23 and 30 respectively. The reason for this is probably due to the fact that the two individuals who head their country's national agriculture Teaching programs are former graduates of the ACTA program, which in part demonstrates the positive impact of this program.

SPRAD TA has taught courses under this activity in Phase II. Lesson plans and teaching notes have been developed, used, and filed for reference and future use.

SPRAD has supported teachers of agriculture in the region by providing them with instructional materials for lesson plans (mainly through the journal - "The South Pacific Ag. Teacher" initiated by a former SPRAD TA). Over 210 schools in the region receive this publication via the ALO network. The AIN has also provided these teachers with teaching materials through its system. With assistance from extension, this activity has enhanced professional training of teachers of agriculture in the region through a series of national workshops. From the period 1985 to 1989, twelve (12) workshops were organized for ACTA graduate and other vocational agriculture teachers. The 344 participants in these workshops come from Western Samoa, Tonga, Fiji, and Vanuatu.

Staff development plans by SPRAD for sustaining this activity is on course. One regular USP/SOA senior staff is presently completing Ph.D. requirements in Agricultural Education at Cornell University and is expected to return August 1990. A second regular staff member (non-SPRAD funded) in this section is presently on study leave completing a Ph.D. at McQuarrie University, Australia.

Conclusions

SPRAD's technical assistance in this area has assisted in raising the level and attitudes of agriculture science in the region in a positive way. The ACTA program has filled a much needed void in strengthening the teaching skills of agricultural teachers in the region. This was echoed by former ACTA graduates around the region visited by the evaluation team. Some, however, indicated a need for more training and teaching materials in

technical agriculture areas (soils, crops, livestock etc.). The agricultural education section recognizes this and has proposed a curriculum development unit (CDU) in Phase III of SPRAD. Consideration has also been given to expanding the ACTA program to a two year program. Under this activity assistance has been given to ministries of education in approving syllabus for agriculture education. Each of the ministries of education in the region (except Western Samoa) has an approved syllabus. Efforts are underway to get an approved syllabus for Western Samoa.

Recommendations

1. SPRAD should continue to fund the ACTA program in Phase III with a view toward institutionalizing it into USP/SOA/IRETA program.
2. A master plan be developed for recruiting ACTA participants from island nations other than Fiji and Tonga.
3. The assistance of USP/SOA technical agriculture sections be sought in developing teaching materials for lesson plans for agricultural teachers in the region.
4. The feasibility of merging the Agriculture Education section and teaching component of extension should be explored to maximize human and physical resources, and to optimize sustainability.
5. A streamlined Curriculum Development Unit (CDU) should be funded in Phase III of SPRAD that takes advantage of the resources of the Communication Support Center of the Extension section and the proposed merging of teaching programs of these two activities.

Activity 3: Agricultural Engineering

The purpose of Agricultural Engineering is to strength and reinforce applied agricultural engineering programs at USP and to extend these to extension and research activities under IRETA.

Progress to Date

The greatest achievement during Phase II has been the construction and equipping of an agriculture mechanics instructional/research laboratory. This facility is well outfitted for instructional and research purposes. It will require minimal effort to be completely operational. The courses developed as part of Phase I and II are now being taught in this laboratory.

Two (2) workshops on small engines were conducted and one (1) extension publication on appropriate small machinery for the South Pacific was prepared thus far in Phase II.

Research efforts have been made with a few specific projects (e.g. seed husking machine, solar dryer, taro cleaning machine). The development of the seed husking machine is well underway, while the solar dryer and taro cleaning machine are still in the experimental stages. A list of potential workshops and research projects for this section has been compiled by an agricultural engineering TA for future efforts.

Conclusions

Support for agricultural engineering instruction, extension and research is still needed in the region. With the completion of the new agricultural engineering instructional/research facility, the capacity for agricultural engineering research and agricultural mechanics instruction (including extension work-shops) has been greatly enhanced. Before this facility was completed it was very difficult to do agricultural engineering research or do acceptable agricultural mechanics instruction by even the best trained personnel. Thus with well trained personnel, agricultural engineering should now be able to make acceptable progress towards its objectives. Even with the recent transfer of vehicle and farm maintenance to the Farm Manager (funded by New Zealand), more time is needed to address the needs of teaching and extension. However, with so few faculty, they have too large of teaching loads to be able to deal with extension and research needs adequately. While there are adequate resources available through the library to address many instructional and extension needs, it takes time to be able to utilize these resources effectively.

While having adequately trained staff (in both quality and quantity) is the greatest concern for the future, the inability to receive equipment and supplies in a timely fashion also restricts the team's ability. Additionally, while a survey of regional agricultural engineering needs has been conducted, planning is required by an experienced research agricultural engineer to determine feasibility (and priority) and to write a plan of work to accomplish these research goals. Consequently, a long-term TA in agricultural engineering can be justified for the remainder of Phase II and on into Phase III.

Recommendations

1. Provide one long-term (18-24 months) TA to establish an active research program and provide on-site training to faculty and staff in agriculture engineering. The TA should be in place toward the end of Phase II and on into Phase III, as ap-

plicable. Short-term and ad hoc TAs can be used after that to work on specific agricultural engineering research projects which have been identified as a priority within the region.

2. Provide a scholarship for one regional staff member to obtain a Masters degree in agricultural engineering in the U.S. for the purpose of returning to USP Alafua to provide assistance in agricultural mechanics teaching, research and extension.
3. Develop and implement policies and procedures to ensure the sustainability (including maintenance and security) of the agricultural mechanics laboratory. Also, limit use of laboratory, equipment (including power and hand tools), and supplies to instructional, research, and extension activities.

Activity 4: Crop Production

The purpose of crop production is to develop the capacity of USP as an institution to produce and disseminate improved varieties of crops, improved agronomic practices and more productive systems of farming throughout the region.

Progress to Date

All of the original objectives of SPRAD crop production have either been met or exceeded. Instructional materials, lecture notes and lesson plans for crop production courses continue to be developed and improved, as well as the development of course materials for two Masters degree programs.

The breeding program on taro has released its first cultivar, the "Alafua Sunrise," and can be considered a success. The breeding program at USP Alafua has subsequently been institutionalized with relatively little support from SPRAD. Also, a breeding program on sweet potatoes was conducted in Tonga in conjunction with the National Collaborators Trials (NCT) project and resulted in the release of a scab resistant cultivar which is now being grown commercially. The Tongan breeding program is ongoing under the direction of the NCT with advisory support provided by USP Alafua and SPRAD. Additionally, three new cultivars of tomato have been selected for bacteria wilt resistance in Western Samoa. Production of commercial quantities of seed remains a problem.

As a part of NCT, fundamental production information was researched on bulb onions in Samoa, Vanuatu and the Solomon Islands. Additional production related research has been conducted on intercropping of taro with legume trees which are trimmed to be very small and short (coppiced). Further research is under way in Kiribati to examine crop production systems under atoll growing

conditions. This work is now being done in concert with similar research supported by the EEC Lome III project. Additionally, ten (10) other NCT projects have Crop Production staff as collaborators.

Resulting from this work, seven (7) publications as part of the IRETA's Agro-Fact series have been prepared on crop production techniques and systems. Forty-six (46) other articles were contributed to IRETA's South Pacific Agricultural News, and other related publications.

In support of crop production research, a screenhouse and the shell of a field laboratory have been completed, as well as has a field equipment/pesticide storeroom.

Conclusions

The crop production group has done a good job of achieving the objectives of Phase II. Support of teaching and extension programs has been very acceptable. However, laboratory facilities for both classroom teaching and research are severely limiting.

A fully functioning analytical laboratory is essential for the long term success of crop production and soils research at USP Alafua. Also, the field laboratory will contribute greatly to the accomplishment of crop production and soils research, especially applied research.

Research on production systems remains behind breeding programs, but progress is being made in this area. Research efforts have addressed the needs of high island countries far better than those of atoll island countries. Again, progress is being made in this area.

The faculty and staff of the Crop Production and Soils Section do not appear to interact on a regular or frequent basis even though some collaborative work is being done. With such a small number of personnel, this interaction is viewed as essential to maximize resources. Also, the research staff needs to make greater use of an agricultural statistician to ensure proper experimental design and statistical analyses of research data. (It is understood that a biometrician is being placed at Alafua by EEC in the next few months to meet this need.) Additionally, this section needs to continue research that addresses the different crop production needs of high land islands and atolls.

Recommendations

1. Combine crop production and soils (Activity 5). Crop production system research requires knowledge and understanding of both. Also, share responsibility of teaching BASIC courses.
2. Equip the soil's laboratory to handle all types of analytical needs for crop and soil research, as well as those from other agricultural areas, e.g. protein analysis of animal feeds. The Soil's Lab should be renamed the Plant and Soils Laboratory. Complete field laboratory to be able to handle "dirty" jobs such as drying and grinding tissues, and handling raw plant and soil samples, thereby keeping the analytical laboratory cleaner and more functional. Additionally, strengthen instruction laboratories in crop production and soil science.
3. Provide short-term and/or ad hoc TAs to address needs of setting up, operating and maintaining the Plant and Soils Laboratory.
4. Provide long-term and short-term TA's to maintain and strengthen existing research and extension activities where possible. Upon completion of existing long-term TA in crops, he should be replaced by someone with a strong background and interest in cropping systems. The objectives of this person would be to integrate the various aspects of production, including culture, soils, plant protection, marketing and economics. Concurrently, a new long-term TA in soils should be placed at USP Alafua when the current TA term expires. This new soils person should have a strong background in plant-soil relationships, more specifically, plant nutrition and soil chemistry. These two TAs would work together to integrate and streamline the new leaner Crop and Soil Section.

Activity 5: Soils

Soils purpose is to strengthen and develop the capacity of USP to undertake research, extension and training in soil science which is relevant and of value to the region.

Progress to Date

The Soils section has developed and implemented eleven (11) courses for the BASIC curriculum. These courses are continuing to be improved and strengthened. Seventeen (17) soil research publications have been included in IRETA's South Pacific Agriculture News and in Alafua Agricultural Bulletin and other USP publications on soils and related topics. These publications have

centered around their research efforts in organic matter, soil fertility, and island soils, as well as the use of pesticides. Also, eighteen (18) extension articles and publications have been prepared on soil topics during Phase II.

The fourteen (14) ongoing and proposed research projects in soils have been based on the concerns of the regions unique soil characteristics. These research projects have addressed specific needs such as composting in atolls, and also the general needs such as the potential for alley cropping of taro with legume to increase soil fertility and plant growth. This type of research has recently been strengthened with the completion of an artificial atoll and also column lysimeters located on the Alafua campus. These facilities provide the capacity to do research on simulated atoll and coral soil environments.

Conclusions

The objectives of the activities in Phase II to date have been adequately met. Soils has assumed responsibility for the Basic Sciences in the agricultural training program which requires a high commitment of the soils staff toward teaching. This commitment has placed a drain on the capabilities of the unit to perform research. The ongoing and proposed research projects are well within line with the needs of region. The soil laboratory is essential to the success of soil research as discussed in the Crop Production Section and will not be repeated here.

Recommendations

See Activity 4 Crop Production recommendations.

Activity 6: Library and Information Services

The purpose of this activity is to strengthen the capacity of USP/SOA to acquire access, and disseminate agricultural information by developing appropriate service oriented facilities and skills at the USP Alafua Library and Information Center.

Progress to Date

In conjunction with the extension/communication section, this activity has continued to develop, strengthen, and streamline the Agricultural Information Network (AIN) Center. The AIN helps to form the Division of Information Services in IRETA. The Division consists of an USP Librarian, an AIN Information Specialist (trained and funded by SPRAD), and an IRETA Information Officer (funded by CTA). These improvements have resulted in a rapid

information response capability at USP Alafua to regional agricultural requests. Information resources of the Library (journals, abstracts, books, computer equipment for cataloging, researching, and developing data bases and information requests) have been developed, strengthened, and are much utilized in Phase II.

Linkages and computer compatibility with other data bases (South Pacific Commission, Guam, etc.) in the region have been established. In addition access to the Dialog System via CTA and the University of Hawaii's Hamilton's Library Public Access Catalogue via PEACESAT have been developed. CTA has also assisted in (through the Royal Tropical Institute (KIT) of Holland) securing CD-ROM equipment and the discs containing KIT and AGRICOLA databases. Library staff have been trained in computers through SPRAD, KIT and IRETA.

Conclusions

The Library Information Activity has developed one of the strongest components of the SPRAD project. The technical assistance provided has been of the highest quality. The AIN Center is providing a valuable service to the region through its rapid response capabilities to agricultural problems and concerns. Library use by students, faculty and the region at large have increased. The AIN system requests increased from 8 in 1986 to 119 in 1989. These requests came not only from the departments of agriculture, but also from agricultural education schools (secondary and tertiary), and the private sector.

The AIN and the library improvements of SPRAD should essentially be sustainable by the end of Phase II. The AIN Information Specialist (funded by SPRAD) position, however, must be made sustainable. This position is crucial for the outreach capability that SPRAD has helped develop. Additionally, the library materials ordered through SPRAD (especially the journal subscriptions) need to be made sustainable.

Recommendations

1. SPRAD should continue its funding of the Information Specialist in the AIN system for the remainder of Phase II and into Phase III for institutionalization. During this time frame, USP/IRETA should explore other sources (donor, regional) of funding or other creative ways of sustaining this position in IRETA.
2. A study should be undertaken during the remainder of Phase II to develop a system of cost recovery (user fee perhaps) on

some of its services to offset cost of high price journals, publications, CD-ROM subscriptions, etc.

3. Library linkages between the contractor (UHM) and the subcontractor (CU) and USP Alafua be formalized and strengthened for long term impact.

Activity 7: Workshops/Seminars

The workshops and seminar activity cuts across the six major components as described in the foregoing sections. The purpose of this activity in Phase II is to expand the mechanisms for disseminating technical information and strengthening the knowledge of agricultural practitioners in the region. The workshops and seminars conducted by IRETA are aimed primarily at the senior and junior staff of agricultural departments of the eleven countries of the region (see Appendix G).

Progress to Date

SPRAD has sponsored 47 (about 9 per year) of the 95 work-shops conducted by IRETA from the period 1985 to 1989 (Phase II). A total of 926 participants were trained. SPRAD has also (through IRETA) supported the research, teaching and extension work of USP/SOA subject matter specialists. A total of 97 workshops/seminars covering all of the major agricultural subject areas at USP Alafua.

Ninecy-five (95) workshops/seminars have been sponsored by SPRAD with locations covering all the individual island countries (except of Nauru, Tokelau, and Niue). The highest numbers of workshops/seminars were conducted in Western Samoa and Fiji, 57 and 12 respectively. The lowest was in Tuvalu with 2.

Conclusions

The objectives of this activity appear to have been achieved in terms of number and capability. Discussions with former workshop/seminar participants in various agricultural departments throughout the region and other areas, summarized that the SPRAD training programs were of value and of high quality. USP Alafua faculty and staff also expressed positive views about the workshops/seminars. USP/SOA faculty were especially pleased at the opportunity to travel to different nations of the region to learn first hand about agriculture problems in these areas.

The use of non-USP Alafua resource personnel (University of Hawaii, Cornell University, SPC, and national departments of agriculture) to assist in these workshops/seminars has helped to

establish linkages and added depth to the training and understanding of regional concerns. As a result of SPRAD's contribution in this area, other agencies (FAO, UNDP, EEC) are beginning to solicit the training services of IRETA in appropriate areas. Plans are underway to expand the IRETA Training Center. This activity will be funded by the EEC's PRAD program.

Recommendations

1. A system be devised to ensure a more equitable distribution of workshops/seminars locations and participants from around the region. This system should also include a strategy for involving the three smaller islands (Niue, Nauru, and Tokelau) to participate (hosting and participants).
2. SPRAD (under IRETA) should continue funding of workshops/seminars in Phase III on a gradual phase-out basis. USP/IRETA during this period should look for and institutionalize other funding mechanisms for this activity.

Activity 8: Support Services

Funding of support services under SPRAD falls under USP/ SOA's USAID grant. The purpose of the support services of Phase II is to provide support to the total activities of the project.

Activity inputs from USAID include:

1. Replacement vehicles to support on-site project staff's functional needs.
2. Refurbish SPRAD project houses as needed.
3. Support for U.S. graduate students to conduct thesis research at USP Alafua (up to one year) and to assist in the implementation of SPRAD programs as requested by the Pro Vice Chancellor.
4. Training for specialized, short-term, non-degree training for at least 6 USP Alafua faculty or staff, conducted in the region or staff, conducted in the region or the U.S. to strengthen technical or professional skills.
5. Equipment and supplies, e.g. micro-computers, printers, accessories and software, for campus support of program.
6. Administrative Assistant for IRETA/Team Leader.

Progress to Date

Three new replacement vehicles were purchased for use by USP/SOA faculty and SPRAD TAs to facilitate teaching and research. Replacement of major appliances (washers and refrigerators), some small appliances, and improvements (inside and out) to one staff house were made. Two additional houses are scheduled for renovation in 1990.

UHM and CU have provided three Graduate Research Assistants in Crop Science, the Library and Extension/Communications during Phase II. Twenty (20) USP Alafua faculty and junior staff have received short courses in specialized training (administrative to programmatic). Microprocessors (IBM-AT clones) were installed in Phase II for use by the Library, faculty, student records and accounting. USP has provided a computer room and 7 word processors for training students to complement this effort (more equipment in this area is expected as part of the EEC Biometrics Consultant Service project). SPRAD has provided short term TA help to train and assist USP Alafua staff to develop computer skills.

Ad hoc TAs (duration of about four weeks each) from UHM and CU to assist with specific tasks requiring expertise not available locally have been provided in this activity in Phase II (see Appendix H). Also, an Administrative Assistant to SPRAD's Team Leader has been provided.

Conclusions

The majority of the activities under the Support Services component has served the main activities of Phase II well. Some USP Alafua faculty indicated to the evaluation team their pleasure with the computer facilities in assisting them in their teaching and research. The SPRAD Administrative Assistant has helped to release the Team Leader of some of the day-to-day activities of this position which has allowed him to concentrate more on the technical work in his area of Crop Science.

Most of the ad hoc TAs provided a valuable service and those whom the evaluators talked with at UHM and CU stated they had gained from the experience. However, the short term TA in computers felt that he could have been better utilized had the administrative staff (accounting) taken advantage of the training. Some SPRAD TAs and USP Alafua faculty indicated that the sustainability of SPRAD activities and university incentives could be enhanced if the administrative support staff at USP Alafua was upgraded (the financial support system in particular).

Recommendations

1. That the Pro Vice Chancellor develop a plan and request (in the remainder of Phase II) SPRAD assistance to improve the financial services system at USP Alafua.

Activity 9: Regional Research Projects

The purpose of this activity is to expand the capacity of USP/IRETA to conduct collaborative research activities in the region which contribute to the scientific knowledge of regional agriculture and reinforce agricultural research efforts of the USP and of national governments.

To realize the purpose of this activity, the National Collaborative Trials (NCT) program was established. Initiated in Phase I (under the Crop Science Activity by a former SPRAD TA), this program extends into all of the major activities of SPRAD and USP/SOA. The concept of the program is to provide relatively small (\$3,000 - \$5,000) annual sums of money for equipment, supplies and/or labor. This supports joint research or development projects between a USP Alafua staff member and a member(s) of a national government agricultural staff. Projects are located on farms or government research stations away from USP Alafua.

Progress to Date

The program seems popular with national collaborators and USP Alafua staff. The national collaborators like it because it provides them with many needed resources and expertise, and USP Alafua staff like it because it allows them the opportunity to tackle local problems regarded important to the region.

Nineteen (19) collaborative research projects under this program have been conducted and/or proposed for 1988 to 1989 (see Appendix I).

A breeding program for the selection of sweet potatoes in Tonga for resistance to scab initiated by this program seems to be very successful. New cultivars were developed and distributed in time to meet a massive increase of the disease. These new cultivars appeared in the markets in 1989. Also, the selection and multiplication of bacterial wilt resistant tomato cultivars for Western Samoa has been conducted.

The development of a seed husking and cleaning machine for maize in the Solomon Islands by the engineering group has proven successful. A cleaning machine for taro is in the experimental stage.

Conclusions

The National Collaborative Trials program has proved to be a successful vehicle for achieving national development and in meeting some national priorities in research. It has helped to improve IRETA staff knowledge of the region as well as contribute to its research image. The new cultivar of taro (Alafua Sunrise) developed under this program in Phase I and II has been distributed and grown in selected areas of the region with some degree of success under farmers' conditions.

National government agricultural department's (Tuvalu, Tonga, Fiji, and Western Samoa) personnel whom the evaluators talked with felt that the program has been excellent and could go a long way in contributing to national development. National government agricultural personnel indicated their desires to increase activity in this program.

Due to the unsuccessful efforts by USP Alafua to hire a program coordinator, the progress of this activity has slowed somewhat.

Recommendations

1. USP Alafua should increase its efforts to hire a coordinator for this program immediately and institutionalize it in IRETA.
2. SPRAD support for this program should continue and be increased in Phase III. Strategies need to be developed by USP/IRETA during this period to secure a more stable source of funding for this important program.
3. Research in the National Collaborative Trials program, as well as research activity in general, at USP/SOA/IRETA needs to become more interdisciplinary in its approach to agriculture problem solving in the region.

Activity 10: Research Assistants

The purpose of this activity is to train graduates in research/extension skills, provide a pool of possible candidates for participant scholarships or selection for junior lecturer posts at USP Alafua, and provide technical support to TAs engaged in research and extension. The mechanism developed by SPRAD to accomplish this is the Graduate Research Assistant (GRA) program (see Appendix J).

Progress to Date

Twenty-two (22) research assistantships have been planned. However, eleven (11) assistantships have been allocated to date. Five (5) have been offered sponsorship (Master degree programs at U.S. universities). Three (3) have accepted and two refused for personal reasons. One (1) participant under the GRA program has completed his studies and is now a lecturer in the Animal Science Section at USP/SOA. Most of the assistantships are in the Crop and Soil sections. Fiji, W. Samoa, Solomon Island, Kiribati, and the U.S.A. have been recipients of the GRA.

The GRA program participants have assisted USP/SOA and SPRAD TAs in conducting their teaching and research. Three (3) GRAs who have completed their training, but did not go on to further training in the USA or elsewhere, have found employment as an USP/SOA lecturer, a manager of an orchid farm, and an engineer with the Ministry of Primary Industries in Fiji.

The GRA program has also provided SOA/IRETA with three (3) graduate assistants from the two participating universities (UH and CU). These individuals have assisted in the education, research, and extension programs in crops, library information, and extension/communications.

Conclusions

The GRA program has proven very useful to SOA/IRETA. It has given USP Alafua the opportunity to evaluate potential staff as well as providing an immediate valuable service to its research education and extension programs. The program, however, needs to be expanded so that all of the island nations may be able to take advantage of this opportunity.

Recommendations

- * Develop a strategy to ensure that all of the island nations are given an opportunity to participate in the GRA program.
- * Allocate the remaining GRA positions targeting the crops, soils, and animal science.

Activity 11: Manpower Training/Scholarships

For USP Alafua to remain and develop as an institution the manpower resources growth is the key to success. The SPRAD initiative in sponsoring the bulk of scholarships in this area has done much for the institution in attaining its short-term

objectives. However, the overwhelming presence of SPRAD in the manpower sponsorship area may well have deterred alternative donors from participating in a more active fashion.

As a further input from SPRAD for a Phase III has yet to be decided, the USP administration should be "courting with vigor" every other source of donor funding.

To highlight the SPRAD inputs and its depth of commitment, the following detail for the period 1981-1989 speaks for itself:

Training	Total Positions	SPRAD Sponsorship	SOA/Other Sponsors
Formal	250	172	78
Informal	1683	926	757

Manpower Projections

The projections of students for all levels of training over the next 20 years allowing for normal attrition are as follows:

Sector	Total	Diploma	1st Degree	Higher Degree
Government	106	67 30	8.5	
Private	50	37.5	12.5	-
Total per year	156	104.5	42.5	8.5

These projections amount to a total of 3120 graduates. In the absence of SPRAD (should this occur), it may be very difficult to find donors to meet these needs. The most likely source is from national governments via their bilateral programs plus a mix of donor funding. Should this type of funding become the style over the next 20 years, the regional governments may out of necessity, trim their student enrollment and exert more pressure for a quota arrangement of donor funded scholarships.

Already some of the regional governments have expressed dissatisfaction in how scholarships are apportioned and if heavier financial inputs by governments occur, USP Alafua will be required to be more accountable to these governments. Therefore, in summary, USP Alafua by necessity must adopt an "aggressive approach" in securing donor sponsorship for achieving their objectives.

Scholarships

The awarding of scholarships is a major concern related to manpower training. To satisfy every demand is an impossibility but planning is needed to fairly and equitably award scholarships available. Among the suggestions presented for consideration is some basic form of allocation on a country by country basis, say 60% of the total scholarships. This will allow planning to address each country. However, the larger countries in general have alternative sources of scholarships within and outside their own country that the smaller nations do not have. This must be taken into consideration, as well as the attrition rate experienced by some countries which drains them of trained personnel.

As the scholarship grants are a major issue, it is unfortunate that USP Alafua has on occasion responded to private requests from students on leave from a government position to extend their studies beyond the period their government agreed to. This creates bad will between the government concerned and the USP administration.

Nevertheless, to retain the status and integrity of USP Alafua, the administration must retain a healthy level of autonomy to avoid any chance of the institution becoming politicized.

Recommendations

1. Alafua administration should review their scholarship allocations systems to ensure that the system used reflects a fair and equitable distribution.
2. That, in reviewing the current systems, consideration is given to:
 - a. Whether it is desirable or practical to allocate to countries a quota to assist their forward planning.
 - b. That countries with sources of scholarship grant do not benefit to the detriment of other countries.
 - c. That the smaller island nations be given special consideration.
 - d. That USP Alafua remain autonomous from pressure.

IV. PROJECT ADMINISTRATION AND MANAGEMENT

SPRAD is a Title XII collaborative assistance mode project. The rationale for this type of contract is twofold: 1) it allows a university to participate in the design as well as the implementation of a project; and 2) it places a premium on long-term, institutional linkages between the contractor and the host country or institution.

In general, the contractors have performed well. Qualified TAs (see Appendix K) were fielded quickly in most cases and have worked long and hard to assist USP/SOA /IRETA upgrade the quality of research, education and extension programs for the benefit of the region.

While the long term TAs fielded to present have done an outstanding job, many sent by UH have not been permanent faculty at UH. A question was raised about the ability of TAs who were not permanent faculty at UH, to develop and strengthen a long term link with UH. This issue was raised at UHM by the evaluators. The Dean of the College of Tropical Agriculture and Human Resources (CTAHR) and the Assistant Director for Research responded that they believe a strong long term CTAHR/USP Alafua relationship has been forged through SPRAD and will continue. It is based on similarities in ecological conditions, agriculture-related concerns, and the mutual benefits each institution can gain through interaction. This is the basis of CTAHR's commitment to the Pacific Basin; it is expressed through not only SPRAD, but also two other regional projects in the Pacific. Keeping the link strong depends on keeping a mosaic of activities going during and after SPRAD. These include: a) long TA assignments for permanent faculty whenever possible, b) short assignments (1 week to 1 year) for faculty from a variety of departments, c) formal and informal interaction with graduate students from the region studying at UH, d) conduct of short courses and other in-service training for participants from the region, e) consultations via satellite, in person or via UH library resources, f) continuity of CTAHR administrative support for faculty involvement in these activities.

The field team has been backstopped well by their respective institutions (although a few expressed minor difficulties of late regarding tardiness of requests and procurement by the SPRAD Management Office at UHM). USP Alafua administration gave high praise for the SPRAD Management Office at UHM for assisting in procurement under the grant and contracts. In addition, Cornell University also praised UHM management of the project. The working relationship between the contractor and subcontractor seems to be a good one. SPRAD's management at USP Alafua by the Team Leader and his administrative assistant seems to complement the overall project management well. The Administrative Assistant knows her job responsibilities which in turn releases the Team Leader from some of the routine management responsibilities. This allows him

to concentrate more on his technical responsibilities in the Crop Science Section. While the evaluation team did not conduct an audit on project funds, the budget information reviewed indicated that funds were being allocated appropriately and spent in a timely manner.

Recommendations

1. The contractor in the future should make every effort to provide the project with its own permanent full time faculty for long term technical assignments.

V. REGIONAL RECRUITMENT OF STAFF

USP Alafua is facing a severe challenge in the recruitment of regional staff. The response from regional graduates for the positions advertised is poor. While considerable numbers of graduates have migrated or taken up different forms of employment, a solid core of graduates still resides in the region. The review team met with a number of the graduates to define the real cause of the reluctance to return to the university to take up staff positions. The major focus of complaint, generally, relates to the salary scale but no isolated issue could be identified.

Among the factors mentioned are: 1) the level of personal income tax levied against salaries, 2) the duty payable on vehicle imports and other personal effects, 3) high cost of living, 4) accommodation deficiencies, 5) spouses and children being denied work opportunities, 6) poor local schools, plus a variety of other minor complaints. These detract from the attractiveness of positions at USP Alafua. For the foreseeable future budgetary constraints at USP generally will limit substantial growth in compensation for regional staff. However, the other constraints listed are probably more significant than has been previously recognized.

By comparison, the two other regional institutions, SPC and the Forum Secretaries offer employment packages far superior to USP. To maintain this existing regional staff and to induce former graduates to take up new positions, a total review of the USP terms and conditions of employment should be undertaken with urgency.

Additionally, it is imperative that the USP Alafua administrators dialogue with the (Secretariats of Foreign Affairs and of Finance) Western Samoa government to correct any imbalances or disincentives which limit staff recruitment to USP Alafua. Currently, that Ministry is reviewing its relationship with regional and bilateral organizations. In this climate of review, USP Alafua should prepare a position paper outlining their specific

needs which may in part form a formal basis for a memorandum of understanding between USP Alafua and the government of Western Samoa.

This memorandum would cover, in addition to the problem areas already stated, provisions for quickly addressing weak points and other areas of administrative concerns. Clearly the present relationship between USP Alafua administration and the officials of the government of Western Samoa needs to be improved.

The SPRAD review team, in consultation with a senior treasury official, was informed that several components of concern to USP Alafua administration had or were being reviewed by the government. Those concerns included: 1) duty exempt status on vehicle and personal effects (for the first 12 months of contract), and 2) indexation of income tax comparative to Fiji for staff. Further, the strong possibility exists that the direct income tax rates will fall drastically and a consumption tax will be applied.

Recommendations

1. USP Alafua administration should update their current knowledge of incentives available.
2. Instigate dialogue with the secretariat of the government of Western Samoa to address the issues that constrain staffing at USP Alafua.

VI. USP ALAFUA ADMINISTRATION, REGIONAL ADVISORY BOARD, AND DIRECTOR OF IRETA

USP ALAFUA ADMINISTRATION

USP Alafua, in terms of SOA and IRETA has become an institute of high regional stature. The growth of the institution continues in line with the objectives. However, that very growth has brought about a demand for administrative services that the system cannot deliver.

The Pro Vice Chancellor's (PVC) workload is beyond the realistic demands of one human's resources. In management terms, the current administrative shortcomings threaten both the status and the progress of the institution. Out of sheer necessity the PVC is shouldering much of the administrative burden currently to the degree that the very skill, talents, and energy he can call upon in building the institution are dissipated in mundane tasks. The immediate requirement therefore is to secure the services of an executive manager to bring the administration back on track.

Recommendations

That USP Alafua secure the services of an experienced executive administration. The work description should be to define, upgrade, and introduce systems to effect efficient operations at USP particularly in the following areas:

1. financial management and accountability,
2. interfacing with Western Samoan Department of Foreign Affairs to fasttrack staffing constraints (e.g. tax scales, duty concessions, work permits, etc.),
3. introduction of computer accounting from current manual system, and
4. staff training program for all administrative sections.

REGIONAL ADVISORY BOARD

The Regional Advisory Board (RAB) is a key component of IRETA and the outreach program. Collectively the board members possess a wealth of knowledge on regional matters as well as specific knowledge of their individual national aspirations and constraints. There needs to be an ongoing consultative process between the Director of IRETA and the RAB members. The current linkage between the RAB and the Liaison Officer (expatriate EEC officer) to IRETA does not provide the type of linkage IRETA needs nor is it the basis for sustainability.

Several members of the RAB feel that the Board is reduced to merely a rubber stamp organization. The rubber stamping accusation arises because the consultative process is not operating in any form or frequency. Yet matters of prime importance particularly in the arenas of policy inputs, priority formulations and collaborative research cannot be decided in the short period given for RAB meetings. Clearly a change in procedures is required to address these imbalances.

Recommendations

1. Monthly satellite linking up RAB members chaired by the Director of IRETA on an "open forum basis."
2. That the board members make early submissions of what they consider "key issues" so that the agenda for their meetings is known well in advance and reflects the issues the RAB wishes to address together with university inputs.

3. That any documents requiring RAB decisions be in the hands of the individual members at least 14 days before the meeting date.
4. That in the case of decisions effecting collaborative research that the papers be in the individual member's hands 21 days prior to the meeting.

DIRECTOR OF IRETA

The post of Director of IRETA is currently vacant and a concerted effort to fill this post is required. This post is the key to sustaining and building upon the early success of IRETA.

The Director's current duties involve a strong teaching component which limits the post in administrative terms, thus constraining the monitoring progress, measuring staff efficiency, response procedures, or stimulating IRETA activities to excellence. The Director's post is the catalyst for regional development in research and extension, and should be recognized as a high profile position requiring mobility, plus motivational and personal contact skills.

The Director should be a regional person and possess an advanced degree in agriculture. Central to his duties is the skill to attract and stimulate donor agencies to fund IRETA projects. Further, the Director and his deputy should be frequently in contact with the RAB. This will strengthen regional ties and strongly support the collaborative process.

Recommendations

1. That the position of Director be readvertised.
2. That the job description for the Director position be revamped to increase the scope of the post, the key wording being:
 - a. The Director will be responsible for the administration, monitoring and programming of regional research and extension operations;
 - b. The position will require substantial regional travel and consultation;
 - c. The Director will be expected to interface with donor agencies to solicit funding for IRETA;
 - d. The Director will report to the Pro Vice Chancellor but will have a somewhat autonomous role within USP Alafua,

- e. The scope of the Director's activities will be broad and it is envisaged that formal teaching will not be part of the Director's duties.

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APPENDIX A

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3. BACKGROUND

The University of the South Pacific (USP) serves 11 island nations (Cook Islands, Fiji, Kiribati, Nauru, Niue, Solomon Islands, Tokelau, Tonga, Tuvalu, Vanuatu, and Western Samoa). Agricultural development in the region is constrained by the dispersal of islands over a wide area, by scarcity of trained people, and by lack of indigenous resources.

About 1.5 million people inhabit islands served by the USP and these island nations are scattered over an ocean area greater than the land mass of the United States. Traditional subsistence agriculture satisfied modest needs, but not present aspirations. Modern agriculture produces a few basic commodities for export (palm oil, copra, sugar and tropical tree crops). Although average incomes are modest rather than poor, many islands cannot feed themselves, employ their people fully, or diversify sources of income. Country sizes slow vary, with Fiji constituting half of the population --- and 70% of USP enrollment.

The 1980 project (Phase I) was conceived as an initial five-year phase of an approximately 15-year effort to develop agricultural research, extension and education capabilities of the University of the South Pacific (USP). The objectives were -- and continue to be -- to develop and reinforce required human resources skills needed for agriculture programs in the region, and to test, perfect and disseminate practical agricultural technologies.

Implementation of the project was awarded to the University of Hawaii with Cornell University as the subcontractor. The first mid-term project evaluation was held in May 1984. As a result of the evaluation it was recommended that the project be continued for a second phase with increased emphasis upon the responsiveness of the USP-Alafua to individual country agriculture research and problem solving requests.

Funding for the first phase of the project totalled \$5,940,000 and the second phase of the project added \$7,060,000 for a total authorized funding to date of \$13.0 million.

4. STATEMENT OF WORK

The project's second phase monitoring and reporting systems will provide information on the quantity and timing of project outputs. Narrative reports will include some analysis of their significance against these criteria. The

evaluation team will be able to draw heavily on these reports for content and for institutions of profitable means for further data collection and analysis.

Special emphasis was given during the second phase to meeting requests from and needs of cooperating countries. Governments' views on project benefits (and problems) will be sought by evaluators. Not every response can be a success, but some will have economic value, or will affect numbers of people directly or will raise local standards of education. Even when these results cannot be quantified, they should be described.

Evaluators will state whether they find any need to revise project plans. If they do, they will suggest shifts in resources to fit needs. All key actors in the project should contribute to this redesign process at all stages. This evaluation should also recommend whether and how to proceed to a Phase III.

The evaluation review of the SPRAD project will focus upon the following evaluation criteria:

- a. Assessments of planned versus actual progress;
- b. Contractor/USP performance (relevance, timeliness, quality, quantity and responsiveness);
- c. Project commitment and effectiveness in meeting regional needs (in the sense of the needs of individual regional countries rather than in the sense of "regional" needs or groups of countries);
- d. Review of stated beneficiary relationships (economic, social and technical effectiveness of the activities);
- e. Disbursement of AID and USP contributions (adequacy, timeliness and relevance); and
- f. Planning requirements for new initiatives beyond life of project.

Based on contractors' (Hawaii and Cornell) and the University of the South Pacific's reports as well as interviews of the following progress indicators will be examined:

- a. Are increasing numbers of Alafua staff positions held by a qualified islanders?
- b. Are increasing non-AID resources being devoted to the agricultural development functions of USP?
- c. Are cooperating country requests for USP agricultural research, extension and education services increasing? Are these requests backed by a willingness to share costs of USP agricultural services?

- d. Are these increases in volume or value of agricultural production attributable to the project? Have losses due to pests or other factors been reduced by the project?
- e. Have changes in agricultural education practices or curricula occurred in the secondary schools in cooperating countries as a result of the project?
- f. What contributions have USP graduates made to national agricultural development?

The Project Paper of April 1985 contains as Annex E a list of activity objectives, outputs and inputs. The evaluation team will describe the progress of the project in meeting these 11 activities, as amended. These activities include:

- Agricultural Extension/Communications
- Agricultural Education
- Agricultural Engineering
- Crop Production
- Soils
- Library Services
- Scholarships
- Workshops/Seminars
- Regional Research Projects
- Research Assistants
- Support Services

5. METHODS AND PROCEDURES

The University of the South Pacific, University of Hawaii and Cornell University are summarizing information contained in quarterly reports and other documents over the past nine years. The information will be organized by the 11 management objectives listed above. This summary document as well as the original Project Paper (August 1980), first mid-term evaluation (May 1984) and the second phase Project Paper (April 1985) will be provided to the evaluation team prior to its departure for Western Samoa.

The evaluation team, after its review of the background documents, will hold meetings with officials and long-term project-funded technical assistance personnel at the University of the South Pacific. In addition, it is expected that the team will meet with public officials and private sector agriculturists in these countries: Western Samoa, Tonga, Vanuatu and Fiji.

During the meetings with university officials, the team will conduct interviews about the university and the appropriateness and sustainability of the university's

agricultural programs. On the other hand, the team's meetings with government officials and private sector agriculturists should be designed to gain an understanding of the impact of the USP's School of Agriculture through returning students and the USP's network of Agriculture Liaison Officers.

The US-based team should travel from the U.S. mainland to Honolulu and meet with University of Hawaii officials for one-half day. The team can then travel directly to Apia, Western Samoa. The team will then be joined by the Pacific Islander team member(s). Initial briefings will be provided by USP-Alafua staff and a USAID representative.

The team will spend approximately 8-10 days in Western Samoa and have in-depth meetings at the University and with private and public sector agriculturists. The team will then travel to Tonga and to Vanuatu to continue the analysis of the University's impact. Approximately 2-3 days will be spent in each of the two countries. The third week of the evaluation will be spent in Suva, Fiji. The evaluation report will be prepared in draft and discussed with USAID and USP officials at the main campus.

APPENDIX B

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APPENDIX A: SPRAD SCOPE OF WORK

SOUTH PACIFIC REGIONAL AGRICULTURAL DEVELOPMENT
SCOPE OF WORK
MID-TERM EVALUATION (PHASE II)

1. ACTIVITY TO BE EVALUATED

- A. South Pacific Regional Agricultural Development (SPRAD)
- B. Project No. 879-0267
- C. Funding \$13.0 million
- D. Life of Project: August 1980 - December 1991
- E. PACD December 31, 1991

2. PURPOSE OF EVALUATION

The SPRAD project is an agricultural institution building project which was designed in 1980 to provide for up to 15 years' of USAID assistance to the University of the South Pacific's School of Agriculture located at Alafua, Western Samoa.

The project is in its second phase (1985-1991) and the evaluation team will:

- (a) judge the effectiveness of the USAID - provided resources to date;
- (b) make a recommendation to AID management about the continuation of the project into its third and final phase; and
- (c) if so recommended, make suggestions about the priorities the third phase should address.

Two key issues will be addressed by the evaluation. First, the impact of the project upon agricultural personnel in the region. Secondly, the ability of the region to sustain the University of the South Pacific's School of Agriculture at Alafua in the long term.

The evaluation report will be used by AID management in USAID/Suva and AID/Washington to judge the appropriateness of continuing support to the project for a third phase (January 1, 1992 through December 31, 1996).

**APPENDIX B: MATERIALS REVIEWED, PERSONS INTERVIEWED,
AND PLACES VISITED**

USAID

- (1) Project Paper: Asia Regional 498-0267, South Pacific Regional Agricultural Development (SPRAD) (Phase 1), USAID/Regional Development Office/South Pacific, August 1980.
- (2) Simiki, Tomasi, Frederick K. T. Tom, and James L. Walker, SPRAD Project Mid-Term Evaluation Report (Phase 1), USAID/Regional Development Office/South Pacific, May 1984.
- (3) Project Paper: Asia Regional 879-0267, South Pacific Region Agricultural Development (SPRAD) (Phase II), USAID/Regional Development Office/South Pacific, April 1985.
- (4) SPRAD Project Extension (Phase II) (Amendment to Project Paper for Phase II), USAID/Regional Development Office/South Pacific, 1986(?).
- (5) SPRAD Project Implementation Report for period ending 09/30/89, USAID/Regional Development Office/South Pacific.
- (6) SPRAD Project, Mid-Term Evaluation (Phase II) Scope of Work and (Sustainability Consultant) Statement of Work, USAID/Regional Development Office/South Pacific, (December 1989).

University of the South Pacific

- (1) Osbourn, D.F., South Pacific Region Agricultural Development Project (USAID 879-0267) Phase II 1986-1991 Progress Report, The University of the South Pacific/Alafua, November 1989.
- (2) Osbourn, D.F., South Pacific Region Agricultural Development Project (USAID 879-0267) Proposals for Phase III 1992-1996, The University of the South Pacific/Alafua, December 1989.
- (3) Triennial Submission (1991-1993) to the University Grants Committee, The University of the South Pacific, December 1989.
- (4) University of the South Pacific/Alafua Campus, Basic Agricultural Science, 1990 (outline of courses taught, staff, research projects, extension activities, and publications).
- (5) Fuata'i, Lafitai, Proposed Course of Study for Agricultural Science in the Junior High Schools of Western Samoa (unpublished paper).
- (6) Asghar, M., and R. W. Tenney, List of Publications (1986-1989), The Institute of Research, Extension, and Training in

Agriculture (IRETA) and the School of Agriculture, University of the South Pacific/Alafua Campus, December 1989.

- (7) IRETA Publications Catalogue: Agricultural Publications for the South Pacific, IRETA, The University of the South Pacific/Alafua Campus, December 1989.
- (8) South Pacific Ag Teacher, Vol. 6, No. 1, IRETA/USP/Alafua, March 1988.
- (9) Agro-Facts: Crops -- Sweet Potato Planting Material, IRETA Publications No. 2/88, IRETA/USP/Alafua, August 1988.
- (10) Agricultural Research in the South Pacific Islands: A Newsletter, No. 5, IRETA and the Consultative Group on Agriculture (CGA) of the Commonwealth Secretariat, July 1989.
- (11) IRETA's South Pacific Agricultural News, Vol. 7, No. 6, 7, 9, and 10, IRETA/USP/Alafua, June, July, September, and October 1989.
- (12) Foss, Paulette, and Wes Ward, ed., Planning, Writing and Packaging Agricultural Information, report of a workshop held on 9-20 October 1989 at IRETA, USP Alafua Campus, IRETA and CTA, January 1990.

SPRAD, University of Hawaii at Manoa

- (1) South Pacific Region Agricultural Development (SPRAD) Project, Report of Activity for the Period April 1 - September 30, 1989, College of Tropical Agriculture and Human Resources, University of Hawaii at Manoa.
- (2) The South Pacific Region Agricultural Development Project (brochure), SPRAD Project, University of Hawaii at Manoa.
- (3) Hamilton, Linda, SPRAD Project Accomplishments: Some Highlights, SPRAD/University of Hawaii at Manoa, November 20, 1987.
- (4) South Pacific Region Agricultural Development Project/University of Hawaii at Manoa, Background Information for Prospective Overseas Staff.
- (5) South Pacific Region Agricultural Development Project/University of Hawaii at Manoa, Overseas Position: Administrative Assistant (job description), 1988.
- (6) Hamnett, Michael P., and Robert C. Kiste, Issues and Interest Groups in the Pacific Islands, study commissioned by the U. S. Information Agency (USIA), Office of Research, December 1988.

European Economic Community (EEC)

- (1) Commission of the European Communities, The Pacific Regional Agricultural Development Programme, (no date).
- (2) Technical Centre for Agricultural and Rural Co-operation (CTA), Regional Branch Office (RBO), (brochure).
- (3) For Agricultural and Rural Development in African, Caribbean, and Pacific Countries (ACP-EEC Lome' Convention) Technical Centre for Agricultural and Rural Co-operation (brochure).
- (4) The South Pacific and the European Community, Commission of the European Communities, June 1989.

Cornell University (December 18-22, 1989)

- (1) J. Bail - Professor of Education, initiated SPRAD project in 1980; Co-coordinator with L. Zuidema.
- (2) L. Zuidema - Acting Director, International Agriculture Program, Co-coordinator of SPRAD with J. Bail.
- (3) R. Colle - Professor and Chair of Department of Communication; spent 6 months in Apia in 1982 plus two visits since that time.
- (4) J. Gould - Senior Lecturer in Extension Education at U.S.P. on SPRAD project, 1982-86.
- (5) H. Cushman - Professor of Agricultural Education, SPRAD Project, 1982-86 (56 months).
- (6) L. Fuata'i - On leave, USP/SUA, Lecturer in Agricultural Education; M.S., Cornell, 1983; Ph.D. candidate, 1990.
- (7) J. Currie - ALO in Vanrata, 1985-88, M.P.S. candidate at Cornell.
- (8) R. Ripple - Chair, Department of Education; Professor of Education Psychology.

University of Hawaii at Manoa (January 18-20, 1990)

- (1) Linda Hamilton, SPRAD Project Manager.
- (2) N. P. Kefford, Dean, College of Tropical Agriculture and Human Resources (CTAHR) and former Principal Investigator, SPRAD.

- (3) Roy Nishimoto, Acting Director, Hawaii Institute of Tropical Agriculture and Human Resources (HITAHR).
- (4) Michael Hamnett, Coordinate, Center for Development Studies.
- (5) Peter Rotar, Agronomist, Department of Agronomy and Soil Science.
- (6) Richard Bowen, Associate Specialist, Department of Agriculture and Resource Economics.
- (7) Kam (Clara) Flower, former SPRAD Technical Assistant in Library/Information Services and former SPRAD team leader.
- (8) Hemant Prasad, SPRAD-sponsored M.S. candidate, Department of Agronomy and Social Science.
- (9) John Kunisaki, Assistant Horticulturist, Department of Horticulture, and former ad hoc SPRAD technical assistant.
- (10) Ada Chu, Chemist, Department of Agronomy and Soil Science, and former ad hoc SPRAD technical assistant.
- (11) John Kleinjans, former short term SPRAD technical assistant in computer skills development.
- (12) Rupeni Tamanikaiyaroi, SPRAD-sponsored Ph.D. candidate, Department of Plant Pathology, and Lecturer at USP/Alafua.
- (13) Falaniko Amosa, SPRAD-sponsored M.S. candidate, Department of Agronomy and Social Science.
- (14) N. Ray Smith, Assistant Director for Research, Hawaii Institute of Tropical Agriculture and Human Resources, and Principal Investigator, SPRAD.

The University of the South Pacific (USP) at Alafua (January 22-26, 1990)

- (1) Dennis F. Osbourn, Pro-Vice Chancellor, USP/Alafua, Head of School, School of Agriculture; and Director, Institute for Research, Extension, and Training in Agriculture (IRETA).
- (2) SPRAD technical assistants and USP/Alafua section heads as a group.
- (3) USP/Alafua senior staff as a group.
- (4) Daryle Foster, SPRAD technical assistant in agricultural education.

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- (5) D. Ampratwum, head, agricultural engineering.
- (6) Param Sivan, Associate Director of Research, IRETA, and head, crop science.
- (7) Cliff Munroe, SPRAD technical assistant, crop science, and SPRAD team leader.
- (8) Richard Tenney, SPRAD technical assistant, agricultural extension.
- (9) Wes Ward, IRETA Information Officer, publications (funded by CTA).
- (10) Paulette Foss, SPRAD technical assistant, library/information services.
- (11) J. Titoko, USP/Alafua librarian.
- (12) Nand Dayal, Agricultural Information Network (AIN) Officer, IRETA.
- (13) Sylvester Ochetim, head, animal science.
- (14) F. Opio-Ekongocha, head, agricultural economics.
- (15) Michi Mulitalo, administrative assistant to SPRAD team leader.
- (16) Stanley Weeraratna, lecturer, basic science (including soil science).
- (17) Bob Chase, SPRAD technical assistant, soil science.
- (18) Malcolm Hazelman, former head, agricultural extension, and former IRETA associate director for extension and training.

Field Trips

Three farmers: a commercial vegetable grower near Apia City, a subsistence farmer in the rural area, and a successful cash crop farmer in the rural area (Western Samoa).

- Two farmers: a successful commercial vanilla grower, and a subsistence farmer, Tonga
- Tour of Research Farm, Tonga
- Acting Director of Commodities Board, Tonga

- Director of Institute of Rural Development, Tonga
- Director of Catholic Schools, Tonga
- Presidents of Methodist Schools, Tonga
- Program Officer "Save the Children", Tuvalu
- Koronivia Research Station, Fiji
- Fiji College of Agriculture
- Tavua High School, Fiji
- Taileva North High School, Taileva, Fiji
- Ratu Kadavulevu School, Ratu, Fiji
- Assemblies of God High School, Fiji
- Lomaivuma Co-operatives Association, Fiji
- Tour of Sigatoka Valley and visit to Naduri Village, Fiji
- Sigotaka Research Station, Fiji
- Legalega Research Station, Fiji

Other Aid Agencies

- Hubert Martinetz, EEC Resident Counsellor (W. Samoa Office)
- Brian Smith, Regional Coordinator, EC/ACP, Lome' II Pacific Regional Agricultural Development Programme
- Ram Batra, UNDP Representative (W. Samoa office)
- Abu Hakim, FAO Representative (W. Samoa office)
- Anne Poulter-Smith, New Zealand Aid Officer, Western Samoa
- Richard Martin, High Commissioner for New Zealand, Western Samoa
- Barbara O'Dwyer, Australian Aid Officer, Western Samoa

Ministry Officials

- Minister of Agriculture, W. Samoa
- Director of Agriculture, W. Samoa
- Deputy Director of Agriculture, W. Samoa
- Head, Quarantine Division, Department of Agriculture, W. Samoa
- Hinauri Petana, Assistant Secretary of Finance, W. Samoa
- Patu Afaese, Minister of Education, W. Samoa
- M. Logologo Taulealo, Director of Education, W. Samoa
- H. O. Fa'anunu, Director of Ministry of Agriculture, Forests and Fisheries (MAFF), Tonga
- Aleki F. Sisifa, Deputy Director, MAFF, Tonga
- Elenoa Amanaki, Head of Planning, MAFF, Tonga
- Viliami Manu, Head of Research, MAFF, Tonga
- Sulunga Lavaka, Head of Extension, MAFF, Tonga
- Nafe Situa, Head of Livestock, MAFF, Tonga
- Terita Faka'osi, Head of Forestry, Maff, Tonga
- Otenilli Tu'ipulotu, Head of Services, MAFF, Tonga
- John Teaiwa, Permanent Sect., Ministry of Primary Industries (MPI), Fiji
- M. Umar, PAO/C/T, MPI
- Ministry of Education, Agricultural Science Section, Fiji
- Seluka Seluka, Agricultural Officer, Tuvalu
- Nakola Nia, Staff Development Officer, Tuvalu
- Poka Tihala, Asst. Sec. to Government, Tuvalu
- Semu Taafaki, Sec. of Natural Resources, Tuvalu
- Mila Nakula, Ag. Librarian, Tuvalu
- Amasone Kilei, Sect. of Education of Health, Tuvalu

- Tavau Teii, Asst. Agri. Officer, Tuvalu
- Sami Panapa, Agriculture Assistant, Tuvalu
- Tomotea Panada, Agriculture Assistant, Livestock, Tuvalu

USP/Alafua Graduates

- Visited with approximately 60 former USP/Alafua graduates

Private Sector

- Friendly Islands Marketing Cooperatives, Tonga
- Charlie Westerland, Greenleaf Produce, W. Samoa
- Steve C. Percival, Savory Snacks, Natural Foods, International, Ltd., W. Samoa

Agricultural Liaison Officers (ALOs)

- Tofiga Su'a, Western Samoa
- Salunga Lavaka, Tonga
- Tevita Korodrau, Fiji
- Itaia Lausavere, Tuvalu

USAID

- John Swallow, AME/TR/ARD, Washington, D.C.
- Eric Witt, ADO/USAID/SUVA
- Kirk Dahlgren, Program Officer, USAID/SUVA
- Jim Osbourn, Acting Mission Director, USAID/SUVA

American Embassy

- Ambassador Evelyn I. H. Teegen, U.S.A./SUVA

APPENDIX C

SUSTAINABILITY ANALYSIS

Executive Summary

This analysis focuses on the sustainability of the benefits of USAID's SPRAD project in its efforts to develop USP Alafua as an institution. The guidelines and assumptions behind such an analysis are outlined in section II.

Generally, USP as a whole and the USP Alafua campus are both seen as reasonably sustainable at present. SPRAD has greatly enhanced the reputation and abilities of USP Alafua, and, therefore, also its sustainability. The teaching and library/information improvements at USP Alafua supported by SPRAD should be basically sustainable by the end of Phase II, but the research and extension activities of IRETA, and the institution of IRETA, will not. These are the most significant accomplishments of SPRAD, and a Phase III of SPRAD will be needed to sustain them--although at a lower funding level than either Phase I or Phase II.

A Phase III of SPRAD, should, therefore, be undertaken, focusing on evolving IRETA and its collaborative research and extension to lean and effective activities that can be sustained. This will not be an easy task and will take some well chosen and focused technical assistance and funding. Long term technical assistance, however, should be concentrated in the first two to three years of Phase III, though short term and ad hoc technical assistance to assure sustainability can take place throughout Phase III. Supporting funding should be gradually phased out over the life of Phase II to encourage the development of a leaner organization and set of activities that can be supported by other funding.

USP, ministries, and other donors are already politically and financially supporting the work of IRETA and USP Alafua. Although more must be developed, this holds out the promise of sustainability of the key activities of USP Alafua and IRETA by the end of Phase III.

Institutional organization and support services of USP Alafua also need to be improved to insure sustainability of SPRAD improvements. Most should be developed by the end of Phase II, but at least one, an effective soils lab, will need Phase III to develop.

Summary of Recommendations for the Remaining Two Years of Phase II and a Possible Phase III of SPRAD

- A. Some key developments that should be accomplished by the end of Phase II of SPRAD:

1. The Directorship of IRETA should be filled by a capable person who is full time with IRETA and delegated much authority over IRETA and its funding.
2. Administrative and faculty leadership of teaching, research, and extension should be more decentralized.
3. USP Alafua's financial services system should be improved. If requested by USP Alafua, SPRAD could assist in this process.
4. Sustained donor support of many IRETA activities should be stabilized.
5. An effective process of handling research projects in IRETA should be institutionalized.
6. The coordination between RAB and IRETA should be regionalized.
7. The income tax and auto duty situation for USP Alafua employees in Western Samoa should be clarified, and consideration should be given to additional benefits that might encourage staff to remain.
8. The improvements in the USP Alafua library and the AIN should be evolved to be sustainable (except funding for the AIN officer).
9. Agricultural education teaching improvements should be evolved to be sustainable, with the beginning of a lean curriculum development process.
10. Agricultural engineering teaching improvements should be evolved to be sustainable, with the beginnings of some efforts in research and extension.

B. Recommendations for a Possible Phase III of SPRAD

1. General guidelines for a Phase III of SPRAD, unless a good case can be made for an exception:
 - a. There should be little or no additional long-term participant training abroad.
 - b. There should be a minimum of long-term technical assistance, and what there is should be in the first 2 or 3 years.
 - c. There should be short-term and ad hoc technical assistance throughout Phase III as needed to strengthen the sustainability of activities.

- d. Overall funding should be front-loaded, evolving gradually to zero at the end of Phase III.
 - e. There should be less total funding than in either Phase I or II.
2. General Summary of Recommended Emphases for Phase III, with Details to be Worked Out in a Project Paper
- a. The focus should be on developing IRETA and its research and extension activities into an effective by lean level that can be sustained after SPRAD ends. This might entail:
 - (1) Two long-term TAs in crops and soils (as below) for the first 2 to 3 years, who focus their efforts on developing and sustaining research activities and the institution of IRETA, and later short-term and ad hoc TAs.
 - (2) One long-term TA in extension for the first 2 or 3 years, who focuses on developing and sustaining extension as a part of IRETA, and later short-term and ad hoc TAs.
 - (3) Funding for ALO, extension, and research positions, workshops, seminars, travel, publications, etc., phased out over the life of Phase III.
 - b. A soils lab should be developed and evolved to sustainability. This might entail:
 - (1) One long-term TA for the first 2 or 3 years and related funding, and later short-term and ad hoc TAs.
 - c. Crops and soils research should be supported as the core of IRETA research. This might entail:
 - (1) One long-term TA for each for the first 2 to 3 years, both with primary responsibility to strengthen IRETA, as noted above.
 - d. The AIN officer position should be SPRAD-funded for 3 years to enable the institutionalization of this position or of its function into another position.
 - e. Interdisciplinary research should be supported that includes agricultural economics/marketing and

animal science/feeds in the other collaborative research projects of IRETA. This might entail:

- (1) Short-term and ad hoc TAs and regional graduate research assistants (GRAs).

APPENDIX D

**APPENDIX D: LIST OF SPRAD SPONSORED SHORT-TERM
TRAINING**

Name	Date	Institution	Area/Type of Study
P. Dunlop	Aug 1985	Univ. of Auckland	Pac Stud/ computer educ.
J. Lee	Aug-Dec 1985	Univ. of Hawaii	Landscaping, tropical gardening
N. Jayawickrama	Nov 1985	Univ. of Hawaii	Budgeting
J. Low	Jan-Feb 1986	Bangkok, Thailand, Australia	Economics
R. Seiuli	Jan-Nov 1986	Tesese Typing School	Clerical skills
J. Godinet	Jan-Nov 1986	Univ. of Hawaii	Library
S. Tonuu	Apr-May 1986	S.P.C.	Printing
E. Adams	Nov 1986	USP - Suva	Info/ communica-tions
M. Asghar	Nov 86-Feb 87	Univ. of Hawaii	Soil erosion, chemistry, agroforestry
I. Tifaga	Jan-Feb 1987	USP - Suva	Lab tech. training
R. Latulipe	Jan-Feb 1987	USP - Suva	Library
W. Fraser	Aug-Sep 1987	Am. Samoa Comm Coll/ Univ. of Hawaii	Computer training
J. Lee	Aug-Dec 1987	Pac. Trop. Botanical Garden, Kauai, HA.	Landscaping, ornamentals, nursery management
N. Jayawickrama	Dec 87-Jan 88	Univ. of Hawaii	Computer training
T. Moengangongo	Dec 87-Jan 88	Univ. of Hawaii	Agricultural engineering
M. Moengangongo	Jan 1988	Univ. of Hawaii	Computer training
P. Dunlop	Feb 1988	Univ. of Hawaii	Women in development
I. Malaki	Jan 1989	Univ. of Hawaii	Distance education
P. Telesoma	Apr 1989	S.P.C.	Offset printing
F. Amosa	Jun 1989	Univ. of Hawaii	Crop Protection

APPENDIX D (continued)

Name	Date	Institution	Area/Type of Study
P. Dunlop	Aug 1985	Univ. of Auckland	Pac Stud/ computer educ.
J. Lee	Aug-Dec 1985	Univ. of Hawaii	Landscaping, tropical gardening
N. Jayawickrama	Nov 1985	Univ. of Hawaii	Budgeting
J. Low	Jan-Feb 1986	Bangkok, Thailand, Australia	Economics
R. Seiuli	Jan-Nov 1986	Tesese Typing School	Clerical skills
J. Godinet	Jan-Nov 1986	Univ. of Hawaii	Library
S. Tonuu	Apr-May 1986	S.P.C.	Printing
E. Adams	Nov 1986	USP - Suva	Info/ communica-tions
M. Asghar	Nov 86-Feb 87	Univ. of Hawaii	Soil erosion, chemistry, agroforestry
I. Tifaga	Jan-Feb 1987	USP - Suva	Lab tech. training
R. Latulipe	Jan-Feb 1987	USP - Suva	Library
W. Fraser	Aug-Sep 1987	Am. Samoa Comm Coll/ Univ. of Hawaii	Computer training
J. Lee	Aug-Dec 1987	Pac. Trop. Botanical Garden, Kauai, HA.	Landscaping, ornamentals, nursery management
N. Jayawickrama	Dec 87-Jan 88	Univ. of Hawaii	Computer training
T. Moengangongo	Dec 87-Jan 88	Univ. of Hawaii	Agricultural engineering
M. Moengangongo	Jan 1988	Univ. of Hawaii	Computer training
P. Dunlop	Feb 1988	Univ. of Hawaii	Women in development
I. Malaki	Jan 1989	Univ. of Hawaii	Distance education
P. Telesoma	Apr 1989	S.P.C.	Offset printing
F. Amosa	Jun 1989	Univ. of Hawaii	Crop Protection

APPENDIX E

**APPENDIX E: SUMMARY OF SPRAD/IRETA PUBLICATIONS
1986 - 1986**

TYPE OF PUBLICATION	Issues	NUMBER OF Articles
Alafua Agricultural Bulletin	9	90
South Pacific Ag Teacher	10	67
Ag Research in the South Pacific	5	
IRETA's Newsletter	42	
Workshop Proceedings	10	
Agro-facts	8	
Other Publications	5	
Misc. printing jobs		
Certificates	35	
Administrative forms, etc.	214	
TOTAL (excluding misc.)	89	157

APPENDIX F

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APPENDIX F: ACTA ENROLLMENT BY YEAR AND COUNTRY ORIGIN

Country	YEAR							COUNTRY
	1982	1983	1984	1985	1986	1987	1989	TOTAL
Cook Islands	-	1	1	-	-	-	2	4
Fiji	3	3	-	4	12	5	3	30
Kiribati	-	-	-	-	-	-	-	0
Niue	1	-	-	-	-	-	-	1
Solomon Islands	-	1	2	2	3	2	3	13
Tokelau	-	-	-	-	-	-	-	0
Tonga	2	1	2	1	4	9	4	23
Tuvalu	-	-	-	-	-	-	-	0
Vanuatu	-	1	1	-	-	1	2	4
Western Samoa	2	2	3	4	-	1	2	14
YEAR TOTALS	8	9	9	11	19	18	15	89

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APPENDIX G

APPENDIX G: NUMBER OF SPRAD-SPONSORED WORKSHOPS/SEMINARS

APPENDIX - TABLE 2. IRETA'S WORKSHOP PROGRAMME
IRETA RELATED WORKSHOPS 1985-1989

DATE	TITLE	LOCATION	SPONSOR	LENGTH	# PART	# OBS	COORDINATOR
03/07-14/85	SPRAD Project Meeting	IRETA	SPRAD	5	8		Linda Hamilton
04/16-18/85	USP University Council Meeting						
04/30-05/02/85	Commonwealth Consultative Group on Agriculture Meeting						
05/20-22/85	Western Samoa Agricultural Curriculum Development (First Wor	IRETA	SPRAD	3	15		Lafitai Fuatai
06/10-21-85	Radio Production Workshop	IRETA	SPRAD	10	13		Jim Gould
07/01-12/85	Laboratory Technicians Workshop		IRETA/INR				
07/02-13/85	Agricultural Extension Teaching Techniques and Principles Wo	Solomon Islands	SPRAD	10	19		James Gould
07/08-12/85	Ag Teachers Workshop	Tonga, Nukualof	SPRAD	5	30		Harold Cushman
08/19-27/85	Regional Agricultural Extension Symposium	IRETA	IRETA/FAO	8	16		James Gould
08/29-31/85	Regional Advisory Board	IRETA		3			Dennis Osbourn
09/09-11/85	Western Samoa Agricultural Curriculum Development (Second Wo	IRETA	SPRAD	3	15		Lafitai Fuatai
09/24-27/85	Training the Trainers Workshop	Fiji, Nadave	SPRAD	4	30		
09/??-??/85	SPRAD Project Meeting	IRETA	SPRAD	5	8		Linda Hamilton
10/03-08/85	Atoll Agriculture	Kiribati, Taraw	EEC				
10/21-11/01/85	ALO Inservice Training	Tonga	SPRAD	10			James Gould
11/04-08/85	Technical Meeting on Smallholder Livestock Development in th		IRETA?(SPRAD)/C	5			
11/11-14/85	South Pacific Coconut Meeting	IRETA	EEC	4			Leonard Fernando/
12/02-06/85	Personnel Supervision	Fiji	IRETA?(SPRAD)/I	5	19		James Gould
12/16-18/85	Western Samoa Agricultural Curriculum Development (Third Wor	Ikeia	SPRAD	3	15		Harold Cushman
03/03-27/86	Workshop on Small Engine Repair and Maintenance in the Solomo	Solomon Islands	SPRAD/ILO	20	12		Harry Justice
03/10-15/86	SPRAD Project Meeting	IRETA	SPRAD	5	9		Linda Hamilton
03/11-21/86	ALO Inservice Training	IRETA	SPRAD	10			Jim Gould
05/05-09/86	Ag Teachers Workshop	Fiji	SPRAD	5	50		Hari Krishna
06/09-13/86	Consultative Meeting on Linkages of Ag Extension with Ag Res	IRETA	CTA/SPRAD/EEC	5	15		Malcolm Hazelman
06/16-20/86	Consultative Meeting of Needs of Agricultural Research of As	IRETA	CGA/EEC	5			
06/23-07/04/86	Production of Quality Seed Workshop	IRETA	CGA	10	21		Jill Wilson
07/07-12/86	Integrating Nutrition into Agriculture Training in the South	Western Samoa,	UNICEF/WHO/IRET	5	32		J Eusebio
07/07-18/86	The XV International Forum on Soil Taxonomy and Agrotechnolo	IRETA	USAID/SMSS/IBSN	10	30	38	Dr. H. Asghar
07/14-18/86	Agricultural Extension Methods	Fiji, Tabukula	SPRAD	5	20		Mohamood Umar
08/04-08/86	South Pacific Islands Regional Meeting on Coconut	Vanuatu, Santo	EEC	5	29		Leonard Fernando/
08/11-22/86	ALO Inservice Training	Vanuatu	SPRAD	10	9		Malcolm Hazelman

APPENDIX G (continued) .

DATE	TITLE	LOCATION	SPONSOR	LENGTH	# PART	# OBS	COORDINATOR
09/08-11/86	Regional Advisory Board	IRETA	EEC?	4			Dennis Osbourn
11/03-08/86	Agricultural Extension Methods	Vanuatu	SPRAD	5	20		Jim Currie
11/03-08/86	SPRAD Project Meeting	IRETA	SPRAD	5	7		Linda Hamilton
12/01-05/86	Efficient Management of Human Resources	Fiji, Tabukula	SPRAD	5	20		Mahamood Umar
12/08-12/86	Ag Teachers Workshop	Fiji	SPRAD	5	44	9	Hari Krishna/Ratu
02/02-06/87	Consultative Meeting on Extension Programme Planning and Man	IRETA	FAO	4	5		Malcolm Hazelman
02/23-27/87	Agroforestry in Tropical Pacific Islands	IRETA	CTA	5	15		Leonard Fernando
03/02-06/87	Appropriate Food Production Systems Around Rural Homesteads	IRETA	CTA	5	23		Leonard Fernando
03/09-20/87	ALO Inservice Training	IRETA	SPRAD	10	6		Richard Tenney/Ma
03/25-31/87	SPRAD Project Meeting	IRETA	SPRAD	6	7		Linda Hamilton
04/13-16/87	Agricultural Extension Methods	W. Samoa, Nu'u	FAO	4	25		Malcolm Hazelman
05/04-07/87	Consultative Group Meeting on Tropical Fruit Production in t	Cook Islands	FAO, ADB, SPRAD	4	18	10	S.C. Ooi, W.H. Ho
05/11-15/87	Ag Teachers Workshop	Fiji, Labasa	SPRAD	5	50		Hari Krishna/Ratu
06/01-05/87	Agricultural Extension Methods Workshop	Kiribati	SPRAD	5	16	14	Malcolm Hazelman/
06/15-19/87	Coconut Annual Meeting	Solomon Islands	EEC/IRETA	5	25	7	Dr. Ooi/Dr. Asgha
07/06-10/87	Ag Teachers Workshop	Vanuatu	SPRAD	5	15		Peggy Dunolp
07/07-10/87	Ag Teachers Workshop	Tonga, Vava'u	SPRAD	4	22		Sione Hausia/Siti
07/13-24/87	Public Enterprise Finance Workshop	IRETA	ISAS	10	13		Sam Singh
08/17-28/87	ALO Inservice Training	Cook Islands, R	SPRAD	10	14		Nga Takaro/Malcol
09/07-11/87	SPRAD Project Meeting	IRETA	SPRAD	5	9		Linda Hamilton
09/30-10/02/87	Regional Advisory Board	IRETA	EEC	3			Dennis Osbourn
10/05-16/87	Planning and Management of Agricultural Research in the Sout	IRETA	IRETA/ISNAR/ADB	10	41		Paul Bennell/Derin
11/02-06/87	Agricultural Extension Methods	Cook Islands, R	SPRAD	5	18		Nga Takoru
11/16-27/87	Agricultural Extension Programme Planning and Management	IRETA	FAO/IRETA	10	21		Malcolm Hazelman/
11/30-12/11/87	Public Enterprise Marketing	IRETA	ISAS	10	17		Sam Singh
12/07-11/87	Agricultural Extension Methods - Audio Visuals	Fiji, Tabakula	SPRAD	5	25		Mohammad Umar
12/07-11/87	Ag Teachers Workshop	Fiji, Nadi	SPRAD	5	45		Hari Krishna
01/25-29/88	Workshop on the Application of Tissue Culture for the Quarar	IRETA	CTA, IRETA	5	15	5	Jane F. O'Hara
02/15-25/88	Regional Training Workshop on Vetative Propagation and Nurse	IRETA	ADB SPRAC Proje	10	14	3	S.C. Ooi
03/07-18/88	ALO Inservice Training (semi-annual)	IRETA	SPRAD	10	11		Richard W. Tenney
03/19-24/88	SPRAD Project Meeting	IRETA	SPRAD	5	8		Linda Hamilton
05/16-20/88	Tonga Agriculture Teacher's Workshop	Tonga, Tongatap	SPRAD	5	35	4	Sione Hausia,
06/06-10/88	Sub-Regional Agricultural Extension Methods Workshop	Tuvalu, USP Cen	SPRAD	5	24		Malcolm P. Hazelm
06/27-07/14/88	FAO Statistics Workshop	IRETA	FAO	14	10		David Marshall
07/04-08/88	Vanuatu Agriculture Teachers Curriculum Development Worksho	Vanuatu, Santo	SPRAD	5	19	12	John O. Williams,

APPENDIX G (continued)

DATE	TITLE	LOCATION	SPONSOR	LENGTH	# PART	# OBS	COORDINATOR
07/18-22/88	Care and Management of Bees for Honey Production	Cook Islands, R	CTA/IRETA	5	14		Victor Rajakulend
08/15-26/88	ALO In-service Training	Kiribati, Taraw	SPRAD	10	8		Malcolm Hazelman/
08/23-09/01/88	Fiji Agriculture Teachers' Workshop	Fiji, Suva	SPRAD	10	42		John Q. Williams,
09/04-09/88	Effective Use of Local Feeds for Pigs and Poultry	Fiji	CTA	5	32		Silvest Ochetim
09/05-09/88	RAB Annual Meeting	Tonga, IRD	SPRAD ??	5			Dennis Osbourn
09/30-10/6/88	SPRAD Project Meeting (semi-annual)	IRETA	SPRAD	5	11		Linda Hamilton
10/17-21/88	Seminar on Agricultural Information Services in the Pacific	IRETA	CTA/SPRAD	5	8	3	Kam Flower/Paulet
10/31-11/04/88	Agricultural Extension Methods Workshop	Tonga, Vaini Re	SPRAD	5	26		Sione Hausia/Rich
11/21-24/88	Alley Cropping	IRETA	FAO/UNDP	4	10	5	Victor Doku
12/09/88	Yam Distribution Mini-Workshop	IRETA	SPRAD	1	15		Cliff Munroe
01/02-02/03/89	Peace Corps Training in Agriculture and Agroforestry	IRETA	US Peace Corps	25	18		Stanley Weeraratn
03/13-24/89	ALO Inservice Training (semi-annual)	IRETA	SPRAD	10	13		Malcolm Hazelman
04/10-13/89	RAB (EC)	IRETA	EEC	4	8	6	Brian Smith
04/17-21/89	Effective Use of Local Feeds for Pigs and Poultry	TONGA	SPRAD	5	22		Silvest Ochetim/S
04/21-22/89	Peace Corps Progress Conference	IRETA	US Peace Corps	2	40		Julie Swanson
04/24-28/89	Establishment and Financial Management of Youth Enterprises	IRETA	Commonwealth Yo	5	15		Hannington Alatoa
05/26-31/89	SPRAD Project Meeting (semi-annual)	IRETA	SPRAD	4	10		Linda Hamilton
06/12-16/89	Integration of Radio and Recording Techniques	Tuvalu	SPRAD	5	18		Ioane Malaki/Itia
06/26-30/89	Small Engine Training Workshop	IRETA	SPRAD	5	14		Ron Borge/David A
07/10-13/89	Second Heads of Extension Consultation	IRETA	Commonwealth Se	4	8		Malcolm Hazelman
08/07-10/89	Fruit Fly Control	IRETA	SPC	4	13	23	Mr. Bob Macfarlan
08/11/89	Yam Distribution Mini-Workshop	IRETA	SPRAD	1	10		Param Sivan/Cliff
08/14-25/89	ALO Inservice Training (semi-annual)	Fiji, Vitu Levu	SPRAD	10	13		Tevita Korodrau/M
09/04-07/89	RAB Annual Meeting	IRETA		4			Dennis Osbourn
09/04-08/89	Ag Teachers Workshop	Tonga, Vava'u	SPRAD	5	19		Sione Hausia/Rich
09/04-08/89	Smallholder Plantation Management Training	Vanuatu	CTA	5	24		Fred Opio
09/04-15/89	Radio Communicatons Workshop	IRETA	Friedrich Ebert	10	18		Ioane Malaki, Dr.
09/25-29/89	Fertilizer Use	IRETA	FADINAP	5	15	5	Dr. L. Schatz
10/09-20/89	Planning, Writing & Packaging Agric. Information	IRETA	CTA	10	12		Wes Ward/Paulette

APPENDIX H

APPENDIX H: LIST OF SPRAD AD HOC TAs

NAME	DATE	TYPE OF ASSISTANCE
Ping Sun Leung	Aug 1983	Computer Training
Curtis Ho	Apr 1984	Video
Gerald Lundeen	Mar-Apr 1985	Library
Durwood Burns	Apr-May 1985	Agricultural Extension
Leng Chia	Apr-May 1985	Industry analysis
Roy Colle	Jun 1985	Agricultural Communication
R. McDonald	Jun 1985	Agricultural Communication
Rick Parlee	Aug 1985	PA system
Lynn Compton	Aug 1985	Extension workshop
Tully Cornick	Jun 1986	Agricultural Extension
Russell Yost	Jul 1986	Soils
Nancy Johnson	Oct 1986	Nutrition
Marian Rauch	Oct 1986	Nutrition
Mike Williamson	Feb 1987	Agricultural Engineering
Ping Sun Leung	Mar 1987	Computer Training
Dick Bowen	May 1987	Agricultural Economics
Jane O'Hara	Jun 1987	Tissue Culture
John Kunisaki	Jul 1987	Tissue Culture
Yoneo Sagawa	Jul 1987	Tissue Culture
Dan Paquin	Aug 1987	Agricultural Engineering
Yoneo Sagawa	Jan 1988	Tissue Culture
John Kunisaki	Jan/Feb 1988	Tissue Culture
Ramon de la Pena	Feb 1988	Aroida & Root Crops
Kathleen Wilson	Mar 1988	Team building
John Wilson	Apr-May 1988	Crop Production
Tom Hughes	Jun 1988	Desk-top publishing
Daryle Foster	Aug/Sep 1988	Agric. Educ. curri./mats dev.
Scott Campbell	Nov 1988	Computer link
Dave Schlabach	Apr-May 1989	Satellite install./training
John Kleinjans	Jul 1989	Computer link

APPENDIX I

**APPENDIX I: CONDUCTED/PROPOSED SPRAD-SPONSORED
COLLABORATIVE RESEARCH PROJECTS**

NO.	TITLE OF PROJECT	RESEARCHERS	YEAR FUNDED	AMOUNT (USD)
1	Production of Scab Resistant Clones of Sweet Potato through Selection and Breeding in Tonga	Jill Wilson Pita Taufatofua Finau Pole Nicole Smit	1988	\$4,000
2	Selection and Multiplication of Bacterial Wilt Resistant Cultivars of Tomato for Western Samoa	Jill Wilson John Joy Wolfgang Gerlach	1988	\$3,000
3	Selection and Multiplication of Wilt Selection Cultivars of Tomato for Vanuatu	Jill Wilson Vincent Lebot Victor Tiollier	1988	\$3,000
4	Solarization to Control Weeds, Nematodes and Other Soil-borne Pathogens in Fiji	Jill Wilson Param Sivan Deo Singh Jay Nand Kumar	1988	\$2,000
5	Intercropping of Immature Coconut in Western Samoa	Rex Clements S. Ooi Fred Opio Sofara Aveau Siaosi Efu	1987 - 1988 1988 - 1989	\$3,250 \$2,700
6	Local Ingredients Utilization in Pig Feeds: Industrial Copra for Pig Feeds in Kiribati	Silvest Ochetim Charles Beya	Nov 87 - Oct 87	\$2,925
7	Development of Seed Processing Equipment in Solomon Islands	David Ampratwum Prakash Chand John Abington	1988	\$3,000
8	Evaluation and Selection of Bulb Onion Cultivars for Vanuatu	Jill Wilson Sue Oliver Victor Tiollier	1988	\$3,000
9	Development of Livestock Feeds Using Locally Available Ingredients in Fiji	Silvest Ochetim Eminoni Ranacou	Nov 89 - Jul 89	\$4,800

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APPENDIX I (continued)

1	Production of Scab Resistant Clones of Sweet Potato through Selection and Breeding in Tonga	Pita Taufatofua Finau Pole Nicole Smit P. Sivan/C.Munroe	\$3,000
2	Selection and Multiplication of Bacterial Wilt Resistant Cultivars of Tomato for Vanuatu	Victor Tiollier Abel Tapiawe Jim Currie Cliff Munroe	\$6,000
3	Evaluation and Selection Bulb Onion cultivars for Vanuatu	Victor Tiollier Abel Tapiawe Cliff Munroe	
4	Island Cabbage (Abelmoschus manihot) varietal Comparison Trial	Victor Tiollier Abel Tapiawe Cliff Munroe	
5	Nematodes and Other Soil-borne Pathogens in Fiji	Deo Singh Jay Nand Kumar Cliff Munroe	
6	Intercropping of Immature Coconut in Western Samoa	Param Sivan Juan Carlos Fred Opio Sofara Aveau Siaosi Efu	\$4,300
7	A Study of the Level and of Yield of Sweet Potato in Tuvalu	-unnamed- J.R. Finlay Robert Chase	Approx. \$4,250
8	Womens Participation in Agricultural Production and Related Tasks: W.Samoa	Peggy Dunlop Paletaoga Afereti T.A.S. Aveau	\$2,500
9	South Pacific Regional Taro Project	Param Sivan Cliff Munroe -to be identified-	\$18,000
10	The Effect of Selected Agroforestry Systems on the Chemical, Physical, Biological and Mineralogical Properties of Soil in Tonga	C.S. Weeraratna Kaveinga Fa'anunu	\$9,900

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APPENDIX J

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APPENDIX J: SPRAD-SPONSORED GRADUATE RESEARCH ASSISTANTS

<u>Name/Nat.</u>	<u>Status¹</u>	<u>Discipline/Progr.</u>	<u>Sponsor/Inst.</u>	<u>Outcome</u>
A. OVERSEAS				
L. Fuata'i, W.S.	S	Ag. Educ. M	SPRAD Cornell	MS Taught SOA 9/83-8/87
F. Afato, W.S.	P	Crop Sci. M	SPRAD CTAHR	withdrew 12/84
T. Moengangongo, T	P	Ag. Eng. M	SPRAD CTAHR	MS Taught SOA 6/85-7/88
N. Tuivavalagi, F	P	Soils M	SPRAD CTAHR	MS Taught SOA 8/86-
M. Hazelman, W.S.	S	Ag. Ext. D	SPRAD Cornell	PhD Taught SOA 3/86-1/90
M. Valesi, W.S.	P	Library M	SPRAD CTAHR	MLS At SOA 1/85-12/87
L. Fuata'i, W.S.	S	Ag. Educ. D	SPRAD Cornell	In progress expect return 8/90
N.K. Dayal, F	S	Library M	SPRAD CTAHR	MLS Inf. Specialist 8/89
E. Adams, W.S.	S	Ag. Ext. M	SPRAD UH/CU	In progress expect return 12/90
A. Sharan, F	GRA	Crop Sci. M	SPRAD CTAHR	In progress WITHDREW 7/89
H. Prasad, F	GRA	Soils M	SPRAD CTAHR	In progress expect return 12/91
R. Tamani, F	S	Pl. Pathol. D	SPRAD CTAHR	In progress expect return 12/91
F. Amosa, W.S.	GRA	Crop Sci. M	SPRAD CTAHR	Commence 1/90 Return 12/92
J. Low, F	S	Ag. Econ. D	LOA/ANU	Resigned
M.P. Dunlop, W.S.	S	Ag. Ed. D	LOA/McQuarrie	In progress
T. Maiava, W.S.	S	Ag. Eng. M	USP/Reading	MSc. Teaching SOA 2/89
M. Tofinga, KI	S	Crop Sci. D	USP/Reading	In progress Teaching SOA 2/89
N. Tuivavalagi, F	S	Soil Sci. D	USP/Newcastle	Commence 1/90

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APPENDIX J (continued)

Name/Nat.	Status ¹	Discipline/Progr.	Sponsor/Inst.	Outcome
B. AT ALAFUA				
R. Tamani, F	P	Pl. Path. M	GTZ/Alafua	MAgr. Teaching SOA 3/85-1/89
Mafi Sale, W.S.	P	M	GTZ/Alafua	MAgr. Return to W. Samoa
F. Pole, T	P	Crop Sci. M	ADRC/Alafua	MAgr. Research Tonga
L. Petaia, W.S.	P	Ani. Sci. M	ADRC/Alafua	Completed Teaching SOA
M. Oliouou, S.I.	P	Crop Sci. M	USAID/Alafua	Completed Research Sol Is.
S. Halavatau, T	P	Soil Sci. M	USAID/Alafua	Completed Research Tonga
F. Waiti, S.I.	D	Crop Sci. M	SPRAD/Alafua	Started 6/89
K. Chand, F	D	Soil Sci. M	SPRAD/Alafua	Starting 1/90

¹ S = Member SOA/IRETA Staff;
D = Demonstrator

P = SPRAD participant
GRA = Grad. Res. Assistant

APPENDIX K

APPENDIX K: LIST OF SPRAD TAs

NAME	DATE	TYPE OF ASSISTANCE
William Steinke	Feb 1981-Jan 1982	Agricultural Engineering
Bob Chase	May 1981-Jan 1982	Soils
Jill Wilson	Jan 1982-Feb 1988	Crop Production
Harold Cushman	Jan 1982-Sep 1986	Agricultural Education
James Gould	Jul 1982-May 1986	Agricultural Extension
John Dunn Sr.	Oct 1982-Jan 1984	Agricultural Engineering
Wayne Kroutil	Sep 1984-Sep 1986	Agricultural Engineering
Fred Tom	Sep 1984-Aug 1986	Program Management
Barbara Bird	Sep 1984-Nov 1985	Library
Tom Davidson	Oct 1984-Nov 1988	Soils
Richard Tenney	Sep 1986-May 1990	Ag Extension/Communications
Clara Flower	Sep 1986-Oct 1987	Library
	Feb-Oct 1988	
Mark Bonin	Mar 1988-Mar 1988	Crop Production
John Joy	Mar-Dec 1988	Crop Production
David Poland	Jun 1989-Mar 1989	Agricultural Extension
Ronald Borge	Jul 1988-Jul 1989	Agricultural Engineering
John Kleinjans	Jul 1988-Mar 1989	Computer Training
Clifford Munroe	Aug 1988-Jul 1990	Crop Production
Paulette Foss	Sep 1988-Sep 1990	Library
Bob Chase	Jan 1989-Jan 1991	Soils
Daryle Foster	Aug 1989-Sep 1990	Agricultural Education
Janet Hawkes	Jul 1990-Jul 1991	Agricultural Education