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South Pacific Region Agricultural Development Project

MID-TERM EVALUATION REPORT

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Project 498-0267
(Grant 492-1710; Contract AID/ASIA-C-1447)

Tomasi Simiki
Frederick K. T. Tom
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May 1984



University of Hawaii at Manoa

College of Tropical Agriculture and Human Resources
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Honolulu, Hawaii 96822

Office of the Director
Louis Kuhn, USAID SPRDO
American Embassy
P.O. Box 218
Suva, Fiji

August 9, 1984

Dear Lou:

Enclosed are copies of the report of the Mid-Term Evaluation Team for the SPRAD Project.

A distribution list is attached. As was agreed during the preliminary briefing meeting in May, copies have been sent to the USP-Vice Chancellor's Office, Larry Zuidema at Cornell, the SPRAD TAs through Jill Wilson, the Evaluation Team, and the UH Co-Principal Investigators. At each site, one person has been asked to handle the distribution.

From the discussions in May, it is my understanding that the Project consensus requested a distribution at this time only to those directly involved with the Project. Therefore, by copy of this letter, I am reminding Project personnel of this agreement, and requesting that circulation of the Report to those not directly involved in Project activity be delayed until after the Project meetings in September. This will provide the Project with an opportunity for internal discussion prior to any public comment.

Additional copies of the Report have been printed and bound, and the Project Office will distribute further as needs are identified in September. I have taken the liberty of sending one copy to former Vice-Chancellor Frank Brosnahan because of his long and direct involvement in the Project.

Please let me know of any further instructions vis-a-vis distribution. I expect the report will form a key portion of the agenda for the September Project meetings at Alafua. UH will arrive on September 5 and remain through September 14; Larry Zuidema will arrive on September 9 and remain through the week as well.

I look forward to seeing you then.

Sincerely,

Ada Demb
Assistant Director

AD/ny

Enclosures

cc: N. Poulton/G. Caston
L. Zuidema

J. Wilson
F. Brosnahan

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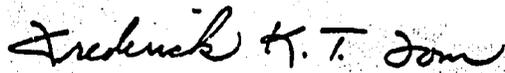
Dr. Ada Demb
Assistant Director
Hawaii Institute of Tropical
Agriculture and Human Resources
University of Hawaii
3050 Maile Way
Honolulu, Hawaii 96822

Dear Dr. Demb:

On behalf of the SPRAD Mid-Term External Evaluation Team, I have the pleasure of transmitting to you herewith a final copy of our Report. We thank you for providing us with the opportunity to fulfill such an exciting assignment.

I will be glad to discuss our Report in detail with you and/or others should you so desire. Please feel free to call on me at any time.

Sincerely yours,



Frederick K. T. Tom
Team Leader

cc: Tomasi Simiki
James L. Walker

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ABBREVIATIONS

ACTA	Advanced Certificate in Teaching Agriculture
EOPS	End of Project Status
CU	Cornell University
HITAHF	Hawaii Institute of Tropical Agriculture and Human Resources
IRETA	Institute for Research, Extension and Training in Agriculture
GTZ	German Technical Assistance Organization
REE	Research, Education and Extension
SOA	School of Agriculture
SPRAD	South Pacific Region Agricultural Development Project
SPRDO	South Pacific Regional Development Office
TA	Technical Assistant
UHM	University of Hawaii at Manoa
USAID	United States Agency for International Development
USP	University of the South Pacific

SPRAD Project Evaluation Report
May 1984

I. INTRODUCTION

THE MID-TERM EVALUATION

In accordance with its usual mid-term external evaluation procedures, USAID arranged for the services of Tomasi Simiki, Director of Agriculture, Fisheries, and Forests of Tonga; James L. Walker, Ph.D., Research Networks Specialist/Agronomist and Soil Scientist, Office of Agriculture Management Staff, Bureau for Science and Technology, AID, Washington, D.C.; and Frederick K.T. Tom, Ph.D., Emeritus Dean, College of Agriculture, University of Hawaii at Hilo. The latter served as Team Leader and wrote this report, the shortcomings of which he fully accepts.

The general aim of the mid-term evaluation was to determine the degree to which the South Pacific Region Agricultural Development Project (SPRAD Project 498-0267; Grant 492-1710, Contract AID/ASIA-C-1447) was achieving its purpose, whether, after the completion of its present five-year term, the Project should be extended, and if so, what recommendations could be made for its improvement.

Specific terms of reference were provided to the Evaluation Team. See Appendix A. In addition, the Team was guided by the following statement taken from page 3 of the Project Paper.

The following conditions should exist by the end of the project and indicate an achievement of the project purpose:

1. An agricultural research, education and extension (REE) resource base in place at the University of the South Pacific (USP) School of Agriculture (SOA) and Institute for Research, Extension and Training in Agriculture (IRETA) on the Alafua Campus 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 the USP whereby selected packages of appropriate technology in five major activity 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 providing timely, continuing and appropriate dissemination of agricultural information and services to national agricultural institutions, private sector, and community organizations.

PROJECT BACKGROUND

SPRAD as a concept seems awesome in its geographical scope, visionary in its broad integrated treatment of participating nations and institutions, and continuously challenging to the forward-thinking individuals within those institutions who have accepted the responsibility for its implementation.

The overall goal of the Project was to promote agricultural productivity and further socio-economic development for the rural peoples of the South Pacific Region. The specific purpose was to strengthen the capacity and resources of the University of the South Pacific (USP) in agricultural research, education, and extension to: (a) develop and reinforce the human resource skills needed for agriculture programs in the region that emphasize equitable social and economic development, and (b) test, perfect, and disseminate practical, cost-effective technologies through a viable outreach system, in collaboration with the respective national institutions which serve their agricultural communities.

A five-year grant commencing in 1980 in the amount of \$5,640,000 was authorized to the University of the South Pacific (USP) with the University of Hawaii at Manoa (UHM) and Cornell University (CU) serving as Contractor and Sub-Contractor, respectively. The amount obligated was reduced in 1982 but

later, in 1984, was restored to the original funding level. Each institution was authorized to spend funds in accordance with an approved budget. USP's contribution in the form of expenses for staff salaries, facilities, equipment, maintenance and operating expenses, and the like was expected to approximate \$5,049,000.

The Project consisted of (a) constructing faculty housing units for SPRAD technical assistants (TAs), (b) providing technical assistance in the form of experts in various fields, (c) offering training opportunities in the form of participant training, regional training workshops, short courses, conferences, and scholarships to aspirants for teaching certificates, diplomas, or degrees, (d) purchasing extension, teaching and research equipment and supplies, and library equipment and books, and (e) establishing a regional network of Agricultural Liaison Officers (ALOs).

PROCEDURES USED

The evaluation took place during a six-week period in April and May of 1984. Dr. Frederick K.T. Tom, the Team Leader, visited SPRAD support personnel at UHM and CU prior to April 30. At that time, the whole Team gathered at UHM to commence the remainder of the evaluation which ended in Fiji on May 30.

In fulfilling its tasks, the Evaluation Team studied pertinent documents supplied by UHM and CU prior to being briefed by these universities and before interviewing knowledgeable persons at these institutions. See Bibliography. It was clarified that, to the extent possible, to be evaluated was the SPRAD Project and not USP/SOA-IRETA. Briefing sessions with USP as well as USAID Mission officials followed. The Evaluation Team members took heart at the cogent suggestions made by the USAID Mission that they should not be "backward-", but rather "forward-thinking" in their approach to their task and

that they be creative in proposing improvements to the Project. Later came a series of on-site visits to Western Samoa, Fiji, Tonga, and the Solomon Islands. The typical routine in each country consisted of meeting (1) officials of (a) the national Ministries of Agriculture and of Education, and (b) international organizations with agricultural development programs, (2) researchers, (3) extension officers, (4) teachers of agriculture, (5) their principals, (6) graduates of Alafua's Advanced Certificate in Teaching Agriculture (ACTA) Program, and (7) ALOs, SPRAD Project employees forging a link between Alafua and the countries of the region. See Appendix B for places and persons visited. Also, some time was spent becoming familiar with the agriculture of the region. In Western Samoa, (1) students of USP/SOA were solicited for their impressions of the contribution made by SPRAD personnel and (2) special discussions were held with two former deans of the USP/Alafua Campus, the incumbent leadership there, department heads, and almost all faculty members. While Vanuatu was not visited, the Evaluation Team had the fortuitous presence of one of that country's most senior Ministry of Agriculture officials during most of the Solomon Islands portion of the on-site visits. He was able to provide informative feedback as to Vanuatu's views as a SPRAD client nation.

Prior to their departure from the Region, the Evaluation Team presented an oral debriefing to USAID, USP, UHM, and CU officials. Following the debriefing, a draft of this report was prepared by the Team Leader, sent to the two other Team members for their comments, then put into final form for submission to USAID Mission, Suva.

OVERALL CONCLUSION AND RECOMMENDATION

The SPRAD Project has been operating under more than ordinarily stressful constraints in spite of which a number of salient results have been achieved.

These included, but are not limited to: the initiation of a new ACTA Program in response to a felt need, the carrying out of meaningful regional research and training projects, producing graduates who have performed well, recruiting and selecting qualified recipients of SPRAD scholarships and participantships, printing and distributing anxiously-awaited publications, holding regional conferences of national leaders of agricultural research, education, and extension, improving the supply of teaching and research equipment, upgrading the library, establishing linkages with professional colleagues throughout the Region, and last but assuredly not least, creating an imaginative ALO network to stimulate the communication flow back and forth between USP/Alafua and its regional clientele.

In its study of the matter the Evaluation Team concluded that if the United States continues to desire to contribute to South Pacific needs in agricultural research, education, and extension, there is no better vehicle available today than through institutional development of USP's SOA and IRETA.

With respect to the triple functions of education, extension, and research, taking the productivity of the SPRAD Team as a whole from the inception of the Project, its achievements in education were commendable; in extension, fair; and in research, not good.

The Evaluation Team further concluded that the SPRAD Project has made reasonable progress in achieving its institutional building goals, remembering that they are not, by any means, amenable to quick or instant attainment. Instances of success have been seen often enough to reveal that the United States does indeed have a realistic opportunity of helping to develop at Alafua a center of excellence. While the development of that center has not yet been brought to full fruition, the SPRAD Project can be proud of the success it has achieved to date. Feeling this way about it, it is understandable that the Evaluation Team, without equivocation, submits its

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major recommendation, i.e., that this SPRAD Project be extended another five years, subject to the usual evaluative procedures clearly established by USAID.

II. FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

OPERATING PROCEDURES AND PROGRAM MANAGEMENT

The USP/Alafua Campus is composed of two organizational entities, SOA and IRETA. The former concentrates on the teaching of formal courses on the campus while the latter does regional research, extension, and training. Nearly all faculty members perform duties in both organizations. The latest roster shows twenty-two faculty members, including the librarian, now on duty, two away on study leave, and seven vacancies. See Appendix C for a complete listing. Of these thirty-one positions, sixteen are funded by USP, four by the European Economic Community (EEC), three by the U.S. Peace Corps, six by SPRAD, and one each by New Zealand and by the Commonwealth Fund for Technical Cooperation (CFTC).

Within the above-described setting, a total of seven SPRAD TAs, graduate degree staff assigned to assume senior leadership roles, have been assigned to the Project to date of which four have completed their tours of duty. Support by the UHM and CU SPRAD Project Offices and by the Principal Investigators has been completely satisfactory and oftentimes exceptional. Communication of needs and responses to them has been expedited through the use of home office telex and bi-weekly voice communication via satellite. Frequent contact among the Senior Fellow TA, the UH Project Manager, and the UHM and CU Principal Investigators, via the above means and sometimes by telephone and tape, have made it possible to give rapid attention to problems when they arise. TAs

expressed appreciation at what they perceived to be a sincere concern for their professional and personal welfare demonstrated by their administrative staffs, particularly the Project Manager. They were also grateful for the fine USAID-financed housing constructed under USP's supervision, a facility which met a critical need. Finally, concurrence was reached upon the importance of a personnel policy handbook for newly appointed TAs

The Contractor and Sub-Contractor have been effective in supervising the work of their TAs. This has been done not only by semi-annual on-site visits but also by the submission and review of periodic reports. One department chairman made it a matter of habit to respond personally to each report he receives! All supervisory/administrative personnel could well emulate this practice.

Speaking of records, to be commended was the effort of UHM and CU in supplying the Evaluation Team the In-House Progress Report documenting clearly the objectives of the Project, the criteria for measuring their achievements, the degree to which each objective had been achieved to date, and the constraints which interfered with greater accomplishments. Also provided was a complete update of the Contractor and Sub-Contractor budgets. The preparation of such materials must have had a salutary effect on the SPRAD Team's own monitoring of its progress or lack thereof. A comparable document depicting USP's activities, SPRAD Project-wise, which the Evaluation Team was led to believe would be forthcoming, was not available.

The members of the Evaluation Team were more than somewhat ill-at-ease, during the period when their services were being engaged, to find themselves receiving guidance from the Contractor instead of USAID. There was an appearance of a conflict of interest in that it was UHM who arranged for the Evaluation Team which was subsequently to judge the quality of the services

provided by this same institution. The feeling was obviously shared by UHM officials who tried valiantly to separate their two distinctive roles, that of Contractor and that of USAID representative. This uneasiness on the part of the Evaluation Team dissipated after on-site visits began.

Early in its life, the SPRAD Project suffered for being one of the first USAID-sponsored projects in the South Pacific Region. Lines of authority among the various AID units spreading all the way from Washington to Asia, and finally to Suva had to be clarified, encumbered by the vast distances which separated them. Because the USAID office in Suva was newly established, its personnel had to sort out duties and delegate responsibility. The Contractor and Sub-Contractor had to learn to be comfortable with each other and work cooperatively to achieve common goals. Changes in the leadership of USP/Laucala, USP/Alafua, and the College of Tropical Agriculture and Human Resources, Hawaii affected the smooth running of the Project. Further delays were encountered when essential agreements between Western Samoa and the United States relating to the tax-exempt status of SPRAD personnel were being negotiated. The family housing construction fell behind schedule, but by not much, so early arrivals had to reside in temporary quarters for awhile. Happily, this litany of woes need not ever again be repeated because there is every indication they have been ameliorated satisfactorily.

However, one of the most severe problems encountered right at the beginning was the rather extreme divergence between what USP expected TAs to do and what the SPRAD Project aspired to achieve. It is probably correct to state that USP officials expected the Project Team to help meet all of Alafua's heavy teaching needs, and then, and only then, to devote time to research and extension. This attitude was contrary to the negotiated terms of the Project itself, as expressed in the Project Paper, Grant and Contract documents.

One of the main premises undergirding the SPRAD Project was that it was to assist the USP in becoming a more effective regional institution in agriculture. In the furtherance of this goal, the SPRAD Team has been rather productive, primarily through engaging in activities that have added to the favorable image of USP/Alafua. Among the persons interviewed, the USP/Alafua personnel about whose work most respondents seemed to be informed were the ALOs and SPRAD TAs. The quality of the TAs' work coupled with their travels throughout the region have made USP/SOA-IRETA much better known. The Evaluation Team concluded that SPRAD is making a noticeable impact in helping USP/Alafua develop a favorable regional image.

The SPRAD Project is contributing to the USAID Sector Goal of promoting agricultural productivity and furthering socio-economic development for the rural peoples of the South Pacific Region. The attainment of this goal is influenced by many factors, the work of USP/Alafua being but one. No member of the Evaluation Team was aware of any methodology for measuring SPRAD's influence toward this goal. Any attempt to do so would likely be counterproductive.

The statements of SPRAD purpose, EOPS, and Outputs are appropriate for a fifteen-year project and do not require major modification. Nevertheless, a slight change in wording will be recommended in the interest of improving clarity.

With regard to the matter of developing linkages with other appropriate agencies, units and persons throughout the Region, SPRAD TAs have fostered sound relationships with the UNFAO Root Crops Project, Ministries of Agriculture and of Education in the South Pacific, the European Economic Community, the West German (GTZ) Program in crop protection, EEC, the USP Library, School of Education, and satellite system, the Australian Universities International

Development Program, and Wageningen (Netherlands) Agricultural University. Linkages with the Foundation for the Peoples of the South Pacific are being established. Weaker ties have been formed with the USP Institute of Natural Resources, the USP Institute for Rural Development, the South Pacific Commission, and the South Pacific Bureau for Economic Cooperation.

One of the most important connections not yet developed to anywhere near its potential is linkage between the tremendous resources of UHM and the activities of the SPRAD Team. More on this point will be said later. Suffice to say, whereas the support provided by UHM SPRAD Project leadership was completely satisfactory, not much was forthcoming from faculty members with expertise the SPRAD Project could advantageously utilize.

The In-House Progress Report alluded to earlier is truly a most helpful document with clearly stated objectives and valid criteria for evaluation. It is suggested that for future issues, additional care be taken to insure that each objective listed has its own set of criteria and that each criterion be individually addressed. This suggestion is offered to eliminate the modicum of inconsistency found in the Report.

The success of the SPRAD Project obviously depends upon the contributions of USAID, USP, UHM, and CU. While admittedly an incomplete picture of USP's total financial input to the Alafua Campus, USP's annual recurrent expenditure at the Alafua Campus was as follows:

Year	Gross Expenditure
1978	WS 300,606
1979	WS 521,063
1980	WS 612,250
1981	WS 597,876
1982	F 621,101
1983	F 675,000

The change in monetary units in 1982 occurred because that was when USP undertook full liability for all expenses of the Alafua Campus, expenses which up to that time were Western Samoa's contribution to the regionalization of her South Pacific Regional College of Tropical Agriculture. The figures should be interpreted in the light of the fact that today's currency exchange rate would make one Fijian dollar the equivalent of one and one-half Western Samoan dollars. Importantly, to any recurrent annual expenditure should be added the pro-rated overhead costs (central USP administration, library, staff training, faculty allowances, examinations, etc.) which for 1983 was F 474,000 for USP/SOA-IRETA. By this reckoning, about US \$1,100,000 (1F\$ = .99USA\$) was spent last year. In graph form, the data are presented in Fig. 1. In terms of the annual recurrent expenditure, the trend of USP's contribution to USP/SOA-IRETA has been definitely upward at a rate exceeding that of inflation.

Regarding USP's financial commitments, no monitoring device is in place. However, there seems to be some merit in USAID receiving an annual accounting similar perhaps to that presented above, except in expanded form. Such would document the facts of the case and can be particularly useful for program planning purposes and for demonstrating the fulfillment of USP's commitments. Especially as these contributions impinge upon the success of the SPRAD Project, care should be taken to identify what USP resources are being allocated to SPRAD activities, although this might not be easy to do. In the process, one needs to remember that the amount allocated to SPRAD can only be a reflection of what is available in the total Alafua budget, and that in these stringent times, that budget is severely restricted. This is understandable, since with the exception of capital expenditures and direct assistance provided by donor countries, 90% of the budget is covered by less developed member countries and 10% by external aid. With such a limited

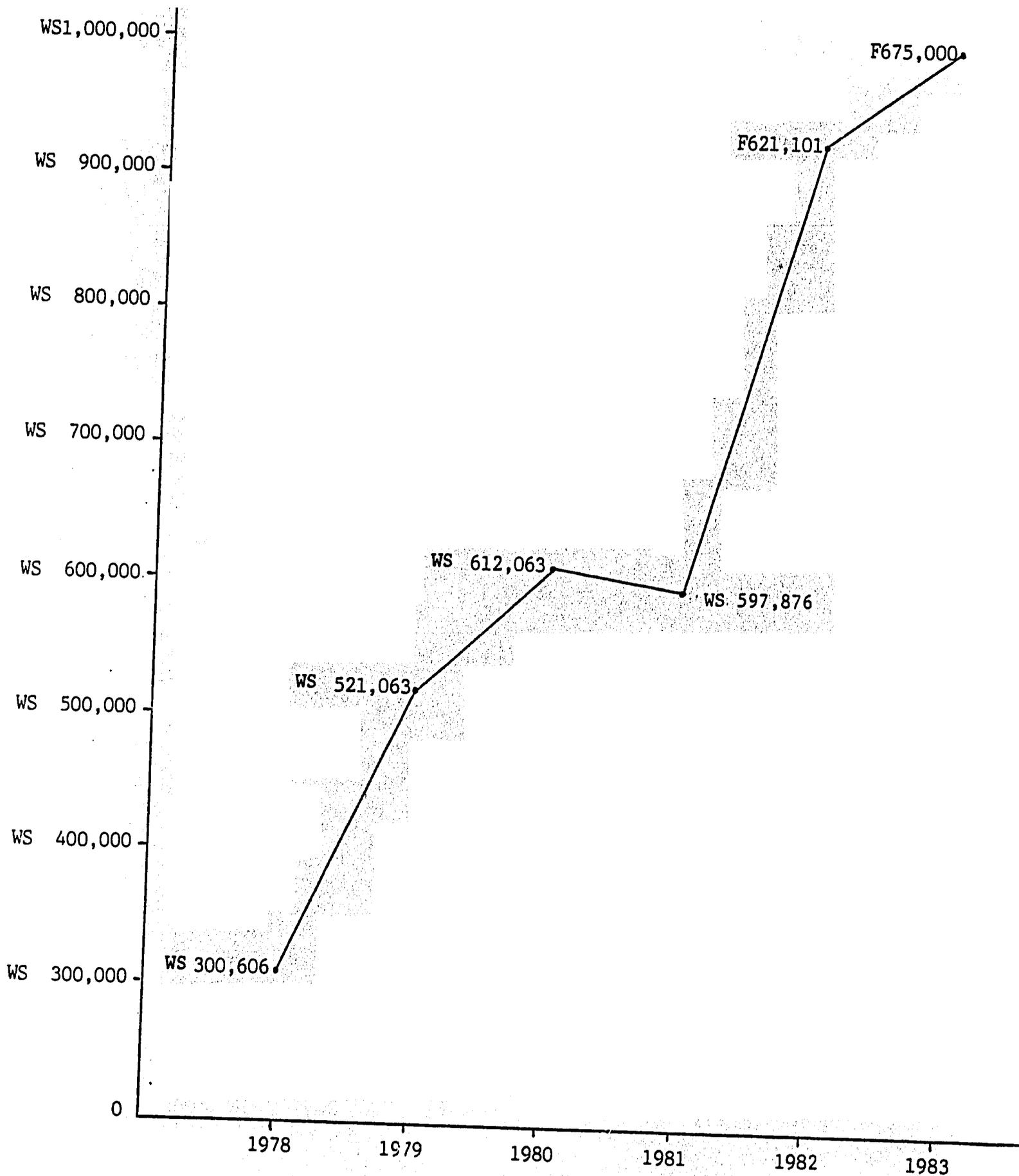


Fig. 1. Annual Recurrent Expenditure for the Alafua Campus*

*For purposes of this graph, one Fijian \$ was assumed to equal 1.5 Western Samoan \$.

resource to draw upon, two conclusions can be made: (1) it will be difficult for USP to continue to increase significantly its financial commitment to its Alafua Campus, and (2) USP/SOA-IRETA will require external aid for a long time to come. Nevertheless, for the moment, a clear indication of USP's reasonable commitment could definitely guide USAID in deciding how much financial resources to set aside for implementing the SPRAD Project.

It would be quite desirable at this point, when a Pro-Vice Chancellor for the Alafua Campus is being chosen, if USP would maintain the dialogue with UHM/CU and USAID that is required to insure the selection of a leader who clearly understands the Region's dynamics in research, education and extension.

A quick review of the expenditures under USP Grant 492-1710 SPRAD Program indicated that there are some unusually large unexpended balances, principally in the categories of scholarships, outreach agents, and workshops. Regrettably, the Evaluation Team did not manage to discuss this matter with the proper USP officials.

Recommendations.

1. That to eliminate redundancy with EOPS conditions, the Project purpose be slightly reworded (see Project Paper, p. 1 and 3), as follows: "to strengthen the capacity and resources of the University of the South Pacific in providing effective agricultural (a) research, (b) education, and (c) extension (REE)."
2. That to have mutually exclusive EOPS conditions (each should stand on its own with no overlap with the others) they (see Project Paper, p.8) be slightly reworded as follows: "an effective functioning research, education and extension resource base at USP/SOA-IRETA to support regional agricultural development programs, the base to consist of an adequate number of well-qualified nationals integrated into (a) an established on- and off-campus

educational program for training persons to support agriculture in the region, (b) a functional research program which primarily tests and perfects practical technologies applicable throughout the South Pacific Region in collaboration with respective island nations, and (c) an effective outreach program capable of disseminating information to and collecting information from regional and national agricultural institutions." Or alternatively, the EOPS conditions simply be (a), (b), and (c) above.

3. That USAID and USP explore simple ways for monitoring the degree to which USP is meeting its commitments to the SPRAD Project.

4. That USAID/SPRDO carefully monitor the rate at which funds under the Grant and under the Contract are being expended and recommend corrective action, if needed.

EDUCATION

Situation. While there may be individual exceptions, taken as a whole, the amount of time SPRAD TAs have devoted to teaching on-campus courses have by far exceeded the combined total of time spent on research and on extension duties. Therefore, not surprisingly the Evaluation Team found: (1) that TAs have developed a favorable rapport with their students, (2) that the latter consider the teaching performance of TAs to be uniformly high, (3) that lesson plans and course materials observed were of high order, (4) that collegial evaluative remarks on the performance of SPRAD TAs were favorable, (5) that visual aids and equipment as well as laboratory and field equipment (some though in short supply) furnished under SPRAD were being used to good advantage, (6) that TAs have improved the quality of the practical classroom and field laboratory exercises associated with their courses, (7) that TAs have been remarkably successful in making their subject matter relevant, (8) that the library was being patronized (though not as often as might be

desired), and (9) that about twice as many favorable as unfavorable opinions were received during the Evaluation Team's visits throughout the Region, on the performance of USP/SOA graduates.

These beneficial education results at Alafua might have been anticipated. The prevailing view of USP leadership is that education is of primary importance and only after its needs are met would resources be allocated to research and extension. It was disappointing that no one interviewed was able or willing to say how much manpower was needed to fulfill the "education" aspect of Alafua's trilogy of functions, and therefore, given the present situation, how much was really left for research and extension.

To the consternation of many TAs, upon reporting for duty at Alafua, they were called upon to teach to such a degree as to preclude their doing anything effective in research and extension. Without much greater effort in these two latter categories, the SPRAD Project will be unable to assist USP/SOA-IRETA in achieving the level of regional distinction expected of it.

While TAs are charged with the responsibility for assisting in the improvement of the curricula in their areas of expertise, because of professorial prerogatives and academic freedom, this function is discharged well at Alafua only by those TAs who are heads of their own departments or are the only persons teaching in their fields. Otherwise, a TA can perform effectively in curriculum development only if the appropriate Department Head administratively paves the way for this curriculum improvement process to take place. All too often a Department Head (and other USP officials) may not be fully informed on the job responsibilities of the TA assigned to his department. This belief was reinforced when it was detected that senior officials at the Alafua Campus, though generally informed on the broad parameters of the job descriptions of the four additional TAs for whom the

Contractor has commenced recruiting, had not seen the specific job vacancy notices for these positions.

As a result of studying reports prior to their on-site visits, the members of the Evaluation Team expected to find rather impoverished student laboratory facilities. This they did. In addition, students themselves raised the subject. They specifically mentioned the necessity to wait too long to take their turn to use simple farm tools in field laboratory sessions as well as laboratory equipment in classroom experiments. The starkness and disrepair of the students' soils laboratory compared dismally with the typical, well-maintained and well-equipped student laboratories at the USP/Laucala Campus. Also, frequently heard during their numerous interviews and seen in the references studied was the comment that students at USP/SOA do not receive adequate practical training, inasmuch as there are insufficient land laboratory facilities for providing supervised practical learning exercises. Interviews on the Alafua Campus lend validity to this comment.

USP/SOA officials appeared pleased with their new Master of Agriculture post-graduate program initiated in 1983. A vast expenditure of staff personnel time is needed to supervise adequately the work of graduate students. Since the SPRAD TAs are eminently qualified to perform this service, the possibility exists they might be called upon to do this should the need arise. Their doing so would be at the sacrifice of other specified duties, including their commitment to the improvement of diploma and degree training and of the research and extension outreach activities, as well.

Clearly the library is becoming a very respectable teaching-learning center. If well used, students can learn how to acquire needed information through the exercise of their own initiative, a life-long skill that will stand them in good stead after they have completed their formal education and

are no longer in a college environment. Reports indicate that students and faculty are not utilizing the library at optimum frequency.

That TAs devote a large proportion of their time to their teaching function is not arguable. There is a large number of classes. Nevertheless, the Evaluation Team could not help but wonder whether there might be ways and means of achieving the same quantity and quality of output while reducing the amount of time spent in the task. Are there suitable means of increasing teaching efficiency? Could courses be taught in alternate years, or once in three years? Could three courses be combined into two? Could course offerings be thoroughly screened to eliminate duplication? Could teaching assistants be made available? Could students be expected to do more "learning" outside of class? etc. etc. The one practice to be argued against is the teaching of degree and diploma students in the same class, a practice which leads inevitably to "under-teaching" of the former and "over-teaching" the latter.

With the exception of Fiji, the countries of the South Pacific suffer from an alarming lack of trained agricultural manpower. For example, in Western Samoa, a recent qualified estimate placed the number of persons with degree training in agriculture, forestry, fisheries, and veterinary medicine at only about forty. Other countries are even less well-blessed, with one having only three bachelor degree graduates in the entire ministry of agriculture. Also, in every ministry of education visited, a ground swell of interest in the teaching of agriculture in secondary schools was encountered with many officials bemoaning the shortage of qualified teachers. The need for such in three countries was listed as 40, 37, and 35-40. In the Region, researchers, extension officers, agriculture teachers, and ALOs were found in numerous instances with only a diploma in agriculture, and in too many cases,

not even that. Surely, the South Pacific Region is fertile ground for pre-service and in-service training programs in agriculture.

So many persons throughout the Region were uninformed about the desirable attributes of USP/SOA, especially in comparison with those in neighboring countries. These attributes include: USP/SOA is a regional institution supported by all nations of the Region; the quality of the faculty is ever improving; the institution has both diploma and degree programs; the institution's mandate is to assist member nations; the institution's faculty is available to visit member nations to assist with specific agricultural problems; etc. There was cause to believe that the lack of proper information has impacted negatively on USP/SOA's enrollment.

Conclusion. The Evaluation Team concluded that the SPRAD Project has been commendably successful in discharging one of its mandated functions, that one being education, but has done so to the detriment of research and extension. Additionally, the SPRAD Project is conceptually sound in its insistence that emphasis be placed not only on education but also on research and extension, for only by strengthening all three functions can SPRAD assist USP/SOA-IRETA in attaining the level of regional distinction to which it aspires.

Recommendations.

1. That USP and SPRAD analyze the Alafua Program, both SOA and IRETA, and decide how to allocate scarce resources to discharging Alafua's function of research, education and extension (REE) expressed in terms of both full-time equivalents of manpower and of finance. There is no better way to state unequivocally what USP/SPRAD's priorities are.

2. That USP/SOA make it administratively possible for TAs to contribute more effectively to curriculum improvement.

3. That SPRAD funds be allocated to upgrade student and faculty research laboratory facilities, both field and bench kinds, to the level usually found in institutions of higher learning, say, USP/Laucala.

4. That multiple sets of student laboratory and farm equipment for learning, e.g., shop hand tools, microscopes, balances, pH meters, hot plates, seeders, garden tools, grafting knives, and the like be obtained by SPRAD in order to reduce the amount of time students waste from needing to wait their turn to use the limited equipment now available.

5. That SPRAD TAs join others in improving the kind, quality, and amount of practical "hands-on" learning experiences students receive in the laboratory and on the farm.

6. That SPRAD effort in education be directed toward the improvement of undergraduate instruction and not be siphoned off for post-graduate instruction.

7. That SPRAD TAs join others in devising ways for maintaining the quality of on-campus education now provided while devoting less time to teaching and more to research and extension.

8. That SPRAD increase the amount of effort and other resources it devotes to conducting conferences and training courses for in-service agricultural personnel.

9. That SPRAD be more aggressive, student recruitment-wise, in informing the Region of USP/SOA's capacity to provide high quality diploma, certificate, and degree programs.

EXTENSION

Situation. The accomplishments of the SPRAD Project Team in the area of extension should be evaluated in terms of the fact that all TAs who have been

engaged to date have had official extension responsibilities in accordance with Contract AID/ASIA-C-1447.

As noted in an earlier section, taken as a whole, TAs spent considerably less time in extension duties than they did in teaching. For all practical purposes, outputs in this area of responsibility did not materialize until after the present three TAs reported for duty in 1982. Among them was James H. Gould, TA in Agricultural Extension and Communication, who should be cited for significantly advancing the progress of the extension phase of the SPRAD Project through his effective leadership. With his present cohorts, in the short time since their arrival, a number of favorable activities were started.

1. A network of Agricultural Liaison Officers (ALOs) has been established in the Cooks, Fiji, Niue, Solomons, Tonga, and Vanuatu. An ALO is soon to be hired for Western Samoa. These people serve as the communication link to disseminate approved technology from USP/SOA-IRETA to the various nations in the Region and to channel information from the latter back to the former. The concept of an ALO network was well-received among clients visited. Except in the case of Fiji and Tonga, where the ALOs were accommodated at the USP Extension Department and the USP Institute for Rural Development, respectively, all ALOs were located in Ministries of Agriculture, principally in the Information Section. ALOs have been provided with motorcycles or with a mileage allowance. Two- to three-week special training sessions have been conducted by SPRAD and IRETA for the ALOs. While ALOs all have similar terms of reference, the Evaluation Team found extremely great variance in the duties they actually performed and sensed a need for greater clarity in all aspects of the network, especially since it is so new and obviously is benefitting from the course of experience. The Team saw a danger of duplication of effort on the farmer's level, if the ALO's activities were

not closely coordinated with those of the Extension Service. Finally, the ALO by his physical presence, is demonstrating the regionality of USP/SOA-IRETA.

2. The "machinery" has been set in motion for transmitting technology and for receiving feedback from clients. Available are a satellite radio for voice communication, a satellite computer link for use especially when accuracy is needed, and a printing press for the publication of USP/SOA-IRETA materials. This "machinery" is being utilized well.

3. The list of publications emanating from the USP/Alafua Campus, though not long, is growing. Illustrative of those in which SPRAD Project Team members have had a major role, though oftentimes in conjunction with other IRETA members, are: Agro-Facts (sample: "How to Collect Soil and Root Samples for Nematode Identification"), IRETA's South Pacific Agricultural News, Alafua Agricultural Bulletin, South Pacific Ag. Teacher, and A Task Analysis of the Job of the Teacher of Agriculture in the South Pacific. The Evaluation Team was unaware of any agro-technical research-based articles and but few extension-type publications written by SPRAD Team members. By and large, the published materials were favorably received by clients in the Region, although two respondents thought the quality of Alafua Agricultural Bulletin could be improved. It might be worth emphasizing that in terms of cost effectiveness, there is hardly a better mass medium for promoting the adoption of approved technology than the printed page.

4. SPRAD Team members have held or participated in regional meetings, as follows: the Second Alafua Conference on Agricultural Education (26 teachers and trainers from five countries), IRETA Extension Roundtable of Chief/Principal Extension Officers, Regional Workshops for ALOs, the Commonwealth Workshop on Post Harvest Losses in the South Pacific, the International Foundation for Science Conference on Edible Aroids, and Root

Crops Course for In-Service Training of National Extension and Research Staff.

5. SPRAD Team members have participated in national meetings, as follows: Consultant to the Curriculum Writing Team in Tonga (7 teachers), Keynoter to the Solomon Islands Agriculture Curriculum Writing Conference (40 teachers), the In-Service Training of Technical Assistants in Crops and Livestock in Western Samoa (20 persons), Western Samoa Extension Officer Workshops, and the Workshop on the Improvement of Small-scale Cash Crop Farming in Western Samoa.

6. In its contact with Ministry of Agriculture administrators, researchers, and extension officers and with Ministry of Education officials, the Evaluation Team was impressed with the fact that the SPRAD TAs now on duty were well-known on a first-name basis. The collegiality was primarily based upon the professional contributions being made by the TAs. This personal contact established by TAs has evidently been a most effective way of "extending" USP/SOA-IRETA applied technology to the nations of the Region as well as helping USP/SOA-IRETA develop a favorable image so important in its young, struggling life. The SPRAD TA in crop production guided the Evaluation Team on visits to research stations in Tonga, Western Samoa, and Solomon Islands. She was particularly effective in offering professional suggestions and desired knowledge to those researchers with whom she was in personal contact. Her contributions were both welcomed and appreciated and her work redounded to the benefit of USP/SOA-IRETA as well as to SPRAD. There was no opportunity to observe at first-hand the effectiveness of the other TAs, i.e., in agricultural education and in agricultural extension, in their personal interaction with others, but heresay evidence leads to the conclusion that they, too, were effective. The point being made here is that personal interaction is proving to be one of SPRAD's most successful means of fulfilling its obligations. As previously mentioned with ALOs, the TAs, by

their physical presence in various countries of the Region, to demonstrate the regionality of USP/SOA-IRETA.

7. It was observed that there are too few persons working as officers throughout the Region. This deficiency was compounded by the fact that all too frequently, these over-worked officers were lacking in the professional skills needed to perform their duties as well as in the technical knowledge required to assist farmers in solving their agricultural problems.

8. Within the last year, the counterpart for the agricultural education TA has returned to duty. In addition, a lecturer has been hired to join the agricultural extension TA. Thus, these two TAs should have increasingly more time to devote to non-teaching duties. Unless drastic changes are made in her teaching assignment, the crop production TA will not be similarly blessed until her counterpart returns from training. In that regard, the SPRAD TAs, as a team, will have more time for non-teaching duties, e.g., extension and research, when four participants return within a year from their post-graduate studies.

Conclusion. Because the achievements of SPRAD since its inception were being judged, the Evaluation Team could rate SPRAD only "fair" in its extension activities. Its productivity should have been higher. Unquestionably, this rating would have been improved if only the output of the current TAs were being evaluated. However, enough examples of excellence were found to lead to the conclusion that the SPRAD Project was on the right track, extension-wise, and that greater productivity in the years immediately ahead can be confidently predicted.

Recommendations.

1. That in cooperation with national ministries of agriculture, terms of reference of the ALO should be clarified and continually reassessed, his

target audience or clientele clearly identified, the linkage between him and his immediate supervisor clarified and strengthened, his daily duty station carefully selected, and his accomplishments duly recorded similar in manner to that used by TAs.

2. That SPRAD TAs devote more time themselves to writing both technical and extension-type publications for distribution throughout the Region and that they encourage their non-SPRAD colleagues to do likewise.

3. That SPRAD TAs continue to make themselves as readily available as possible for assisting their various colleagues throughout the Region by personal visits and attendance at non-SPRAD-sponsored in-country or regional meetings, even if invitations to these events must be inveigled!

4. That SPRAD TAs give attention to how USP/SOA-IRETA can best meet the desperate need in the Region for in-service training in both professional (how to teach, research, and extend) and technical (what to teach, research and extend) skills needed by researchers, extension officers, agricultural teachers, and other clients, and specifically that SPRAD TAs organize (always in cooperation with national officials) more in-service regional and in-country workshops, short courses, and seminars for upgrading present staff.

5. That efforts be continued to develop an awareness in the Region of the benefits that can accrue from capitalizing on the resource represented by the USP/SOA-IRETA Library.

RESEARCH

Situation. According to Contract AID/ASIA-C-1447 SPRAD TAs in agricultural engineering, soils, and crop production are specifically charged with research duties, while the two social scientists (in agricultural education and agricultural extension) are not. On the other hand, the on-site TA in agricultural education as well as the TA in crop production, since their

arrival at USP/SOA-IRETA, have been carrying out, in one degree or the other, applied research. Furthermore, this research focussed at least as much upon the Region as upon USP/Alafua. Evidence of research productivity of previous TAs, all of whom had tremendously heavy teaching loads, was wanting.

Two of the scientists on site, one biological and the other social, are doing an admirable job in carrying out research meaningful to the Region. The focus of the research of Dr. Jill E. Wilson, the biological scientist, is on the food crops that are important to the region and upon which other scientists are not doing significant production research--root crops including the aroids, principally Colocasia, Xanthosoma, Crytosperma, and Alocasia; sweet potato; yam and cassava. In addition, she is working on the potentially important cash crops of tomato, cucumber, and onion. In short, she is doing an excellent job of targetting her research upon problems of basic necessity.

Dr. Harold R. Cushman, the social scientist, through his research has identified the principal professional tasks of teachers of agriculture in the South Pacific and has also identified those subject matter areas in which teachers of agriculture felt the greatest need for instructional materials for teaching. Results of the first study have been directly applied in the development of the ACTA Program at Alafua as well as in the development of an agriculture teacher training program in Solomon Islands. Results of the second research are being utilized in current plans for the production of instructional materials for the secondary schools of the Region.

Special mention of these two scientists has been made to emphasize the importance of doing research of relevance and which is predicted to bear results in a reasonable period.

In its present state, research in crop production has reached its outer limits. Personnel and logistical support are its principal bottlenecks. As mentioned earlier, the undergraduate teaching load for the SPRAD TA is very

heavy. In spite of USP's earnest efforts, there is no teaching assistant and experiments on campus cannot be expanded due to lack of suitable facilities and support personnel to permit the installation of new research plots. Personnel time and support constraints have practically eliminated the possibilities of holding regional workshops for researchers and for publishing research findings for use in the Region. Then, too, the heavy time requirements that the crop production TA must devote to her duties as Senior Fellow (de-facto party chief for the SPRAD Team) curtail her efforts in promoting applied research.

A quick survey of USP/IRETA campus facilities for SPRAD biological research personnel, fortified by visits to research farms in Western Samoa, Tonga, Fiji, and Solomon Islands, led the Evaluation Team to conclude that IRETA is the most impoverished of all. Further, research efforts have been hampered by the absence of adequate financial resources for payment of materials, supplies, equipment and labor, in spite of heroic efforts on the part of USP to provide same. The Evaluation Team discovered with envy that other funding agencies in the Region, notably UNFAO and GTZ, provide their researchers with practically all needed expenditures plus a rotating fund controlled by the party chief to be used for the purchase of emergency inputs. It is unfortunate, as in the case of SPRAD, when the talents of senior researchers are not fully utilized for lack of needed support, especially when solutions appear to be at hand and are, in significant part, administrative in nature. Recognizing the limited capacity of USP to sustain an expanded research program in agriculture at the the present time, and cognizant of the beneficial experience gained by SPRAD to date, the Evaluation Team believes the time is ripe for USAID to increase significantly its support to SPRAD for stimulating regional research.

Following the example of research being done in crop production, a similar success is entirely possible in the soils area, specifically in soil fertility management and agrotechnology transfer by means of soil classification applications. It will entail much better integration in the soil fertility and plant nutrition areas than now exists; and, it will likewise require cross-linkage with USP's Institute of Natural Resources so that the soil classification capacity that already exists there can be brought into use and directly applied to problems of crop production throughout the region. There appears to be little justification for separate research efforts in either field for the next five years. In like manner, SPRAD's efforts in the soil management area, principally soil fertility diagnosis and improvement, will be most productive where the closest linkage with crop production research and improvement is assured.

In the tour of the Alafua experimental farms and those of member nations, some research projects observed were clearly regional in nature while others were predominantly national in character. There is surely room for both types of research. However, the avowed aim of USP/IRETA is to engage in "regional" research, an aim which has been incorporated into the purpose of the SPRAD Project. Therefore, SPRAD TAs themselves must have a clear concept of what constitutes "regional" research and should promote it amongst their colleagues in the Region.

One country had an experimental fruit crops plot in which were growing a wide selection of tropical fruits from Australia thought to be of potential use. This brings to mind the possibility that SPRAD, by drawing upon the resources of the Hawaii Institute of Tropical Agriculture and Human Resources, might undertake a regional project of a similar kind, organizing an effort to supply multiple nations in the region with desirable tropical fruit trees or other propagating materials. Advice could be provided on their cultivation

and on monitoring the performance of newly-introduced varieties. The result might well be a regional effort of recognized merit. Additionally, this example can be used to illustrate the point that SPRAD might like to cultivate a deliberate policy of doing more research based upon the findings and expertise of the UHM's vast HITAHR organization. If possible, the work already done by HITAHR should be capitalized upon to advance SPRAD's cause more effectively and efficiently. Other instances in which UHM's resources could benefit SPRAD are (1) in developing techniques for screening taro varieties for acidity, (2) in providing special tissue culture expertise for assisting the Region in coping with quarantine regulations prohibiting the importation of ordinary plant materials, and (3) in assisting in the development of USP/-IRETA vegetable crops program. To date, the SPRAD Project has benefitted minimally from the research resource which UHM possesses.

Unfortunately, the personnel in SPRAD and the remainder of IRETA and the resources available to them are insufficient to meet all the important identifiable research needs of the Region. Thus, greater effort should be exerted by USP, USAID, and SPRAD to seek additional external financing to bolster IRETA's research effort (as well as its extension and training activities). This might usefully begin by attempting to bring about informal coordination, perhaps under UNFAO, amongst the international and bilateral agencies which are becoming increasingly active in promoting research and training in the Region.

Because of the many constraints mentioned previously, SPRAD personnel have produced but few publications and there was no readily discernable evidence, at this early stage in SPRAD's existence, that research was resulting in the adoption of advanced technology. Of course, much of the research work in crop production, especially in breeding, could not be

expected to bear fruit for some time to come. The Evaluation Team, however, was encouraged by signs that the factors limiting the research productivity of SPRAD TAs are being rectified as quickly as possible.

Conclusion. Because of the numerous constraints depicted above, the Evaluation Team concluded that the research achievement record of the SPRAD Team, taken as a whole and covering the period since its inception, was not good.

Recommendations.

1. That the work assignment of TAs be set in such a way that in the future considerably more time can be allocated to research and extension than in the past.
2. That an additional regional crop scientist be incorporated into the SPRAD staff to bolster this important area of work.
3. That USP and UHM/CU develop a clear understanding of how the cost of needed research is to be borne, including but not limited to the expense of land preparation, trained labor, adequate fencing, constant water supply, and equipment, materials and supplies essential for carrying out the research.
4. That USP make every effort to provide suitable land, shadehouses, and adequate hygienic, well-ordered and functional laboratories and offices to facilitate the work of the researchers on its staff.
5. That SPRAD fund all reasonable expenditures for labor, materials, supplies, land preparation, and equipment required to conduct approved regional research, rather than rely on the financially-strapped USP and member governments to defray these expenses.
6. That SPRAD initiate the development of a systematic and rational long-range plan for the stimulation of regional research. Suggestions which could be considered are these: hold rotating annual research meetings of directors of research and/or senior researchers from member nations. involve

the directors of agriculture appropriately, organize the meetings around an important theme, include presentations in a typical conference room format as well as in the laboratory and field, and include "hands-on" activities when desirable.

7. That the TA(s) in crop production and the TA in soil science mount joint efforts, in collaboration with suitable colleagues at IRETA and in the Region, in developing an "inter-disciplinary" approach to solving soil management and crop production problems.

8. That USP/SOA-IRETA, of which SPRAD TAs are integral parts, concentrate its efforts on "regional" research, and toward this end, officials concerned undertake soon to define more clearly the criteria for "regional" research. Suggestions include: the problem under study must have been officially declared important by more than one nation, the execution of the data collection phase of the study must take place in more than one country, the research plan must have been drawn up with the active participation and concurrence of all nations concerned, the commitments of each cooperating nation in a study should be clearly stated, etc.

9. That SPRAD TAs carefully select research projects that have the greatest likelihood of resulting in the early discovery of appropriate technology which could be readily adopted throughout the region, and that SPRAD TAs and UHM/CU vigorously investigate opportunities for capitalizing on the research already done in their home institutions (UHM or CU).

10. That AID/SPRDO assist USP and UHM/CU in aggressively linking up with other AID research resources as well as other donors in order to seek additional funding to perform needed research now not possible for lack of resources. In other words, AID/SPRDO should make every effort to keep donors/lenders aware of the fact that USP/SOA-IRETA is the officially

recognized agricultural research center supported by eleven member nations and encourage these donors/lenders to launch a sustained and determined effort to help make USP/SOA-IRETA work.

11. That SPRAD TAs not neglect the very important necessity of publishing their research findings both in an appropriate technical publication for the professional as well as in a suitable extension-type format for others, remembering that it is the researcher who must generate the basic material which is then subsequently channeled to the consuming public via the extension/communication network already in place.

12. That SPRAD expenditure for electronic equipment for research and teaching be suspended until appropriate laboratory housing is available.

13. That the mechanics of interchange, including feedback among research, extension, and education under SPRAD/IRETA be formalized. The "system," such as it is, is much too ad hoc for the long haul.

14. That the Activity Output EOPS (See Contract AID/ASIA-C-1447, Operational Plan #2) on page 7, Activity 4, Crop Production part b, being technically incorrect, be restated: "selected and tested crop cultivars for use in the region, national testing of propagation materials, and where possible, their distribution for regional evaluation"

TECHNICAL ASSISTANCE

Situation. Thus far, in the form of experts, SPRAD technical assistance has been provided in five subject matter fields and the library, the fields being: agricultural engineering, agricultural education, agricultural extension, crop production, and soils. The scope of the Project did not include assistance to animal science, agricultural economics, and food science. The result is a situation where there is USAID help for improving only certain fields when all desperately require help. It would be preferable to aid all

areas, since the weaknesses of any given area adversely impacts on the others. As was previously noted, the importance of crop production fully justifies an additional TA to bolster this area's research efforts.

At present, three TAs are on duty in agricultural education, agricultural extension, and crop production and four are being recruited in agricultural engineering, soils, library science, and program management. Comments from a large group of varied respondents on the campus and throughout the Region on the quality of the performance of the three on-site TAs has been uniformly highly favorable. The past work of the short-term library TA was also lauded. However, with respect to the performance of the early pioneering TAs (in agricultural engineering and soils) a strongly mixed reaction was encountered which ranged all the way from terrible to good. The Evaluation Team is inclined to infer that the negative judgments heard might very well have been the result of frustration at the delays encountered in launching the Project, as well as to the expectation that all TAs would be senior staff members from the University of Hawaii and Cornell University. Unquestionably, clashing personalities played a part, too. Major dissatisfaction now appears to be a condition of the past and not the present.

The agricultural engineering TA warrants comment at this time. His REE duties involve mostly agricultural mechanization activities. Persons with Ph.D.s in this field are almost as rare as the proverbial hen's teeth, inasmuch as up to five or so years ago, only one U.S. institution offered the doctorate in agricultural mechanization, to the knowledge of the Evaluation Team. Thus, it concurs with an earlier suggestion made by writers of "Summary of Needs Assessment and Planning Trips for Technical Assistance, January, 1982" that

the Project seriously consider a revision of the requirement of Ph.D. level staff for this area, as the most suitable candidates are likely to be those who have been functioning in farm mechanics and agricultural mechanization... These individuals will more likely have Master's level training.

Noticeable progress has been made by TAs in revising their own curricula in maintaining a high standard of teaching, in ordering teaching equipment (audio-visual, laboratory, and field), in fostering regional research, especially in root crops and vegetables, in establishing a network of ALOs in the Region, in establishing a new ACTA Program at Alafua, in sponsoring much needed regional meetings of national extension officers and of national officials concerned with agriculture training at the secondary school level, and in equipping the Alafua library and supplying it with books, not to mention the favorable impact caused by the interaction with their professional colleagues on and off the campus.

In the scheme of things at Alafua, whenever a participant is away for training, someone is required to fulfill the assignments of the participant. This person is usually a SPRAD TA. Upon the return of the participant, past experience has indicated that he can indeed benefit from a TA-supervised internship experience as he recommences his career. While supervising the intern, the TA could also contribute directly to the teaching, extension, and research purposes of the institution with emphasis on the latter two.

Recognizing the special talents possessed by the typical TA, the Evaluation Team continually wondered how their effectiveness could be maximized. TAs have improved their curricula and have acquired or developed appropriate teaching materials. TAs are prepared to provide individual in-service training, advice, and counsel to their designated counterparts. Yet the TAs are in daily contact with many other colleagues who may benefit from additional individual or group training. No concerted effort was noticed for meeting the needs of persons currently on the staff at Alafua, although plans to do this in the future were mentioned.

Recommendations.

1. That technical assistance be expanded to include animal science, agricultural economics, and food science and that the crop production technical assistance be augmented by the addition of a second TA.
2. That the Ph.D. degree not be required for the agricultural engineering TA.
3. That the minimum period of technical assistance for any given subject matter area should be for as long as there is a participant undergoing Ph.D. training in that field plus one year.
4. That (a) UHM/CU and USP take steps to decrease the divergence between their respective expectations of the duties of TAs, (b) UHM/CU insures that TAs have a more accurate perception of the job duties prior to reporting for duty, and (c) UHM/CU continues to impress USP officials with the critical necessity of promoting research and extension in order to achieve the mutually desired goals established for the SPRAD Project.
5. That in the next five-year period, the TAs be permitted, even required, to devote less of their time to on-campus teaching.
6. That copies of as much as possible of the teaching materials found beneficial by TAs be retained on file for use by others following the departure of a TA.
7. That the individual in-service training, advice and counsel TAs provide to their designated counterparts also be provided to others, especially, nationals, who could benefit from such training, advice, and counsel.

PARTICIPANT TRAINING

Situation. That part of the SPRAD Project which provides for the selection and training of nationals to assume full-time positions at the

USP/Alafua Campus is indeed an important, if not the most important, legacy USAID can leave in the region when the Project is terminated. Of more than passing interest is the fact that at the present time, there is no agency other than USAID which funds participant training specifically for USP/SOA-IRETA positions. The Team regrets the fact that it was necessary to reduce the number of post-graduate awards from the original ten to six when funds were cut, as well as the failure, albeit for sufficient and justifiable reasons, to raise the number when additional funds subsequently were obligated in 1984. This regret is mentioned if but only to emphasize the value this Evaluation Team places on participant training.

At the present time, of the six participants, one has returned from training with a master's degree in agricultural education, while the others are undergoing training in agricultural extension, agricultural engineering, crop production, soil science, and library science. In interviewing them, the Evaluation Team learned that (1) each is confident of the scholastic progress he has made or is making (although the academic record of one is actually mediocre), (2) each has been greatly assisted by Project staff at UHM and CU, (3) none objects to the idea of a participant doing his dissertation research in the Region, if permitted by his institution and if made possible by SPRAD, (4) with one exception, no one knows for certain that USP plans to employ him, upon his graduation, and (5) none is well-travelled in the Region and thus has little first-hand knowledge of prevailing conditions in the countries served by USP.

No one with whom the Evaluation Team discussed the matter seemed to have a clear picture of how the participants were recruited, selected and counselled. There was some talk of possible "inbreeding" if all participants were sent to UHM and CU for graduate study. Also, many agreed that to be successful in the social milieu of the South Pacific, a young person would be

aided immeasurably by possessing an earned doctorate, not only because of its status value but also because of the additional research capability it connotes. Besides, it was learned that USP seeks the doctoral degree in the qualifications of candidates aspiring to faculty positions.

Since research skills are a critical necessity in staff members of USP/ SOA-IRETA, a participant's training program should address this matter forthrightly. The all too numerous limitations facing researchers in the South Pacific should not be forgotten, e.g., interminable delays, lack of equipment, inadequate supplies, great distances between nations, lack of familiarity with member countries, etc. However, it is in just such a milieu that returning participants must execute their research. Thus, it would seem desirable for participants doing dissertation research to gain experience and learn how to improvise, under supervision, in working in that kind of a situation on problems meaningful to the Region. The challenge would be to evolve suitable arrangements which would gain the aforementioned advantage, while still permitting the participant to meet satisfactorily the academic requirements of his educational institution.

Information obtained showed that from the inception of the USP/ SOA in 1978, a total of ten South Pacific nationals have served on the faculty. Of these, four have subsequently resigned after terms of service of 11 (commencing prior to 1978), 4, 2, and 2 years. Illustrated here is the very important point that people do leave their positions for others. Change should be expected. Therefore, USAID may want to think of "over-training" participants for USP/ SOA-IRETA in selected fields, e.g., crop production, where any excess persons trained might be expected to find employment in the Region elsewhere than at USP. Every knowledgeable person consulted agreed that at the present time, with the dearth of trained persons in agriculture,

the entire Region would benefit if USAID were to train more persons than were needed specifically for USP. Presumably, the concept of "over-training" cannot be adopted unless the present requirement that participants be guaranteed a job upon their return is modified.

The above comments notwithstanding, the Team concluded that in light of prevailing constraints, the participant training program has indeed been managed well with more than average success to date, with progress being made (one graduate on duty, four to join the faculty in less than a year, and one in two years or so) in assisting USP/SOA-IRETA develop a pool of trained faculty members.

Recommendations.

1. That the SPRAD Project provide participant training in all subject matter fields taught at Alafua and for as many persons as needed to fill the faculty positions allocated by USP administration to Alafua, currently 18-19.
2. That the SPRAD Project participant training plan be implemented as expeditiously as possible, contingent upon the availability of (a) qualified staff already appointed, or qualified non-staff who might be recruited for faculty positions at USP/Alafua, (b) USP funds for meeting salary obligations of returning participants, and (c) availability of SPRAD funds.
3. That participant training be carried ultimately to the Ph.D. level.
4. That participants who return from training with master's degrees be required to demonstrate a satisfactory level of proficiency for approximately three years before being eligible for consideration for a Ph.D. participantship.
5. That educational institutions which enroll USP selectees for post-graduate study be encouraged to have these persons do their dissertation research in the Region, and that the reasonable cost of this activity be borne by SPRAD, when approved in advance by USAID.

6. That the siting of some participant training at well-chosen institutions other than UHM and CU be seriously considered.

7. That the four master's students currently undergoing studies at UHM be provided with a much-needed "familiarization" tour of the region after they have received official faculty appointments. Such a tour group should be headed by a senior official of USP/Alafua.

8. That procedures for the recruitment and selection of participants be reviewed. Provisions should be made for the involvement of faculty members of the specific departments concerned. The period of internship at USP/SOA-IRETA for non-staff persons selected for participantships, spent prior to their departure for studies, should be carefully designed for maximum learning with clearly-defined objectives.

9. That selection criteria encompass, in addition to academic ability, leadership qualities, including a propensity to lead by doing instead of to lead by telling. In addition, a commitment to all three functions of education, research, and extension should be sought.

10. That USAID and USP explore ways in which participants may be selected for training without the necessity of being guaranteed a job upon their return from studies abroad. If this exploration proves successful, the Team recommends that serious thought be given to "over-training" in selected fields, e.g., crop production, where any excess persons trained might be expected to find employment in the Region elsewhere than at USP.

11. That USP relieve the anxiety of the four students studying at UHM by informing them of whatever commitments, if any, were made for their employment.

SCHOLARSHIPS

Situation. The SPRAD Project contains provision for 49.5 academic-years of USP/SOA scholarships for students of the Region, particularly from the smaller nations, to study for diplomas and degrees. This was to allow each of the eleven South Pacific Nations on the average to send one student for a full 4.5-year term. These opportunities are especially appropriate in view of the recent increase in student fees from \$1000 to \$3000 annually. This three-fold increase has resulted in a noticeable decline in student enrollment at USP/SOA.

By far, most, if not all, of the recipients of USAID scholarships have been enrolled in the ACTA Program for certificates, and but few, if any, for diplomas or degrees. Thus, the ACTA Program, newly inaugurated as a result of the SPRAD Project, has been placed on a sound footing, already graduating to date sixteen persons who have returned to their countries in agricultural service.

Scholarship holders in the ACTA Program were all nominated by their governments and either possess a diploma in agriculture or are mature individuals with good records as teachers of agriculture. This nomination procedure is tantamount to insuring that each graduate has a teaching position waiting for him. Many affirmative results of these certificate graduates were noticed by the Team on its evaluation tour. Had there been scholarship graduates with diplomas or degrees, similar results would probably have been observed.

In the South Pacific, there is a dearth of scholarships specifically designated for the study of agriculture. Given the low social acceptability of agriculture, there is no more effective means of stimulating study of this important subject than through the offering of scholarships set aside for this purpose by prestigious institutions such as USAID.

Indications are that considerable funds may be coming into the Region from international lending sources to support improved national research, extension, and training systems. There will be a number of posts open for trained people to staff these projects. USP/SOA can be in position to supply most of these people, and with the concerted support of USAID and other international donors, should rise to the occasion to do so.

Conclusion. The scholarship program is fulfilling the purpose of providing noticeable support to the respective island countries' agricultural development, and is an extremely rapid means of deriving regional benefits from the resource base represented by USP/SOA.

Recommendations.

1. That USAID triple the number of academic-years of scholarship support available through the SPRAD Project.
2. That the number of diploma and degree scholarships be increased.
3. That the SPRAD Project undertake an annual follow-up employment survey of scholarship winners (perhaps also doing so for degree and diploma graduates) to determine SPRAD's contribution to developing the human skills needed for agricultural development in the Region.

LIBRARY

Situation. At the time the SPRAD Project was conceived, the library was deficient in space, equipment, books, periodicals, and trained manpower. With financial assistance from the New Zealand government, EEC, USP, and SPRAD much progress has been made in upgrading the library. The building has been enlarged as has been the collection. The library now serves as an official depository for UNFAO publications. The Evaluation Team took special cognizance of evidence of the good use of items purchased through SPRAD, that

is, extensive shelving, card catalogue files, card reproducing equipment, typewriters, and books. It was learned that USP has an allocation of soft money for a second librarian (for three years) at USP/SOA, but that a recent USP advertisement for the post attracted not a single applicant, attesting to the shortage of trained librarians in the Region willing to work under Western Samoan conditions at current rates of pay. Praise was expressed for the fine consultative services of Barbara Bird, who was provided on a TDY basis to USP/SOA through UH Title XII Strengthening Grant funds, when the technical assistance program for the library under SPRAD was eliminated due to the budget reduction by AID in 1982. A South Pacific national is presently undergoing training in library science at UHM. Fortunately, the recent reinstatement of this technical assistance program augurs well for the continued success of the library phase of the SPRAD Project.

The vast potential the USP/SOA-IRETA library has for providing useful knowledge to its clients throughout the Region is not being tapped. Apparently, people are only beginning to learn they can draw upon library resources, through direct correspondence or through their ALO, for many services including abstract copying and computerized bibliographic searching.

Recommendations.

1. That additional funds, perhaps in the \$70,000 range, be made available in the next increment for purchase of equipment and books.
2. That a participant be selected as soon as possible for training in library science.
3. That the man in library science being recruited, upon arrival, give attention to increasing the use of the library by faculty and students and by clients throughout the Region.

III. CONCLUDING STATEMENT

The members of the Evaluation Team consider it a privilege to have served on this assignment which each felt personally and professionally rewarding. While a large mass of information was obtained, included in this report were only those aspects believed likely to improve the SPRAD Project.

There is naught but praise for the many persons who accommodated the Team as it sought to fulfill its mission. Particularly helpful in the early stages of the study were the briefings provided by senior SPRAD Project personnel at UHM and CU. Also outstanding were the services provided by the SPRAD Project Manager's Office in obtaining and providing all needed documents, laboriously finalizing the truly complex travel arrangements, and typing this final report. In the same vein should be mentioned the special services, as well as vast knowledge, provided by the SPRAD Project Senior Fellow at Alafua. Not to be overlooked were the numerous interviewees whose collective input made up the grist from which the more substantive portions of this report were ground. To all, the Evaluation Team hereby records its grateful appreciation.

It was significant that during their extensive travels throughout the Region, there was no incident where anyone stated that SPRAD or USP/SOA-IRETA was a failure or that either one would fail. To the contrary, USP, UHM/CU, and USAID were encouraged to keep supporting the SPRAD Project for at least five more years.

Were only the activities of the current TAs being investigated, the findings would have been more positive. After a rather mediocre beginning, the SPRAD Project is currently moving along at a very respectable rate. As a matter of fact, the current TAs have set such a high standard of output that subsequent TAs will have difficulty in sustaining it.

A point not brought up earlier could be made here. Perhaps the most telling evidence of the Project's viability is that present on-site TAs, all three of them, with assured professional futures ahead of them, in spite of the many constraints faced, have deemed it desirable to renew their contracts for a second two-year tour of duty. Being as conscientious as they are, surely this must mean that they see a hopeful future for the SPRAD Project

Frank Brosnahan, former USP Vice-Chancellor, has said, "USP is a real expression of and a major instrument for fostering and promoting regionalism." The United States, through its AID SPRAD Project, supports this philosophy. By executing its triple responsibilities of research, education, and teaching, SPRAD is contributing toward making regionalism more of a reality. That the SPRAD Project can be successful is not in doubt. However, the rate and level of its success are largely dependent upon both USP and USAID resources. Those of the former appear to be strained. Thus, in the immediate future, most of the gains in SPRAD productivity, especially in research, must depend upon continued and expanded USAID assistance.

Finally, to repeat, the Evaluation Team concluded that the SPRAD Project has made reasonable progress and recommends, without equivocation, that it be extended another five years.

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Appendix A

TERMS OF REFERENCE FOR THE
EXTERNAL EVALUATION TEAM FOR SPRAI

There are several important elements that frame the scope of the external evaluation of the South Pacific Region Agricultural Development Project. In reviewing the Project, the external evaluation team should address the following:

- a. Assess the effectiveness of resources provided through USAID to contribute to South Pacific needs in agricultural training, research and extension, through institutional development of the Alafua Campus of the University of the South Pacific. This Campus includes both the Institute for Research, Extension and Training (IRETA) and the School of Agriculture (SOA) for this regional university (USP).
- b. Reassess the goals of the project and the needs for redefinition, as well as the Project's priorities as originally stated and temporarily modified in January 1982.
- c. The process of building an institutional capability is a long one. Evaluation should reassess EOP's of Project and create appropriate indicators.
- d. Assess the degree to which the Project is progressing toward contributing to the linkages among relevant government departments, scientists, extension workers and farmers in terms of program quality, quantity and relevance.
- e. Assess both grant (USP) and contract (UH/Cornell) performance in achieving Project program.
- f. Evaluate the disbursement of USAID and USP contributions in terms of adequacy, timeliness and relevance.
- g. Assess the performance of AID in terms of financial, technical and managerial support and guidance.

As the team conducts the evaluation, at least two other questions should specifically be considered:

1. To what extent are national policy considerations affecting the accomplishment of long-run goals of the SPRAD Project? What characteristics in the region either enhance or inhibit the accomplishment of SPRAD objectives; for example, country quarantine regulations on agriculture products, regional export/import or transportation patterns?

2. A "user perspective" should be incorporated into an evaluation of the Project. What do the clients in the region see as their needs in agriculture research, extension and training and how are they being met, or should they be met through Alafua, USP? Are problems rooted in client situations affecting SPRAD's ability to contribute to Alafua's development, e.g., finding qualified students, or client institutions in the smaller countries like Kiribati, Nauru, Tokelau and Tuvalu? Why? How could circumstances be changed?

Source:

--UH Contract amendment #11.

--SPRDO Telex to DC, January 30, 1984.

--Kuhn letter to Demb, March 13, 1984.

Approved by Paupe April 6, 1984

Appendix B

Places Visited and Officials Met

A. Cornell University, New York, April 23 and 24, 1984

Joe P. Bail, Chairperson, Education Dept.
Larry Zuidema, Associate Director, International Agriculture Prog.
Kenneth Wing, Associate Dean, NY State College of Agriculture and
Life Sciences
Robert Bruce, Member of Advisory Group (AG), Extension Education
Arthur Berkey (AG), Agricultural Education
Lin Compton (AG), Extension Education
William Drake (AG), Agricultural Education
Roy Colle (AG), Communication Arts
Don Swartz (AG), Communication Arts
Sidney Cleveland (AG), Associate Director, Extension Service
Malcolm Hazelman, SPRAD Participant in training

B. University of Hawaii at Manoa, Hawaii, April 30 to June 4

Ada Demb, Co-Principal Investigator of SPRAD Project, Assistant
Director, HITAHR
Noel Kefford, Co-Principal Investigator of SPRAD, Dean, College of
Tropical Agriculture and Human Resources
Linda Hamilton, SPRAD Project Manager
Kent Bridges, former Co-Principal Investigator
Joseph O'Reilly, Chairman of Liaison Committee (LC), Human Resources
Development
Ray Smith (LC), Agronomy and Soils
Peter Rotar (LC), Agronomy and Soils
Hal McArthur (LC), Coordinator of International Programs, CTAHR
P.Y. Yang, Agricultural Waste Management
James Silva, Soils

B. University of Hawaii, continued

Barbara Bird, Library Specialist

Suaesi Valasi, Tevita Moengangongo, Nacanieli Iuvavavagi, and
Faafouina Afato (SPRAD Participants in training)

Frank Brosnahan, former USP Vice-Chancellor

C. USP/SOA-IRETA, Alafua, Western Samoa, May 5 to 14

Leonard Fernando, Acting Dean and Director of IRETA

Don Slade, Acting Head of School

Felix Wendt, former Dean

Tauilili Uili, former Dean

Jill Wilson, SPRAD Senior Fellow

Harold Cushman, SPRAD TA

James Gould, SPRAD TA

Ferdinand Fliege, GTZ Crop Protection Unit

Tofinga Mareko, Crop Production

Toomata Alapati, Animal Sciences

Lafita'i Iupati Fuata'i, Agricultural Education, SPRAD participant

Tavele Maiava, Agricultural Engineering

William Cable, Soils

Mohammad Asghar, Soils

Kees van der Does, Animal Sciences

Michael Harrington, Agricultural Education

Robert Yehl, Librarian

Members of the Student Council (about 12)

Lanse Polu, Agricultural Information Officer

D. Western Samoa, May 5-14

Tofu Tupuola, Head Mistress, Senior High School

Falaniko Amosa, Agriculture Teacher

D. Western Samoa, continued

Wolfgang Gerlach, Senior Researcher in Plant Pathology
Maui Moamoa Mose, Principal Agriculture Officer
Farmer (passion fruit, cocoa, taro, coconuts)
Tavita Leupolo, Director of Agriculture
Seve Imo, Chief Agriculture Officer (Extension Division)
Sofara T. Aveau, Loan Projects Coordinator
P. F. Tamati, Director of Education
Gidon Blumenfeld, UNFAO Representative
Nick Hughes, Assistant UNFAO Representative

E. USAID Mission, Suva, Fiji, May 15-19, May 22-24, and May 28-31

William Paupe, Head
Louis Kuhn, SPRAD Project Officer
Aloyse Doyle, former SPRAD Project Officer

F. University of the South Pacific, Laucala, Fiji, May 15-19, May 22-24, and May 28-31

Geoffrey Caston, Vice-Chancellor
Nick Poulton, Director of Planning and Development
Robert Steward, Pro-Vice-Chancellor for Schools
Esekia Solofa, Pro-Vice-Chancellor for Institutes
Keith Dalton, Bursar
Subas Chandra, School of Education
Esther Williams, Head Librarian
John Morrison, Soils
Majorie T. Crocombe, Director, USP Extension Services
A.I. Williams, Head of Distance Education

G. Fiji, May 16-19 and May 22-24, and May 28-31

Nand Kishore, ALO

G. Fiji, continued

Navin Patel, Director of Agriculture

Ace Vunakece, Senior Information Officer

M. Ali, Minister of Education

N. Randig, SPC Plant Quarantine, FAO/UNDP Project

Hari Ram, Deputy Permanent Secretary

Dani Ram, Chief Education Officer, Agricultural Education

Ivor Firman, UNFAO Director of Root Crops and Plant Protection Projects

Robert Ikin, South Pacific Commission

Param Sivan, Assistant Director of Agriculture (Research)

Gaya Prasad, Teacher of Agriculture

Chandrika Prasad, Teacher of Agriculture

H. Tonga, May 19-22

Tevita Holo, Acting Director of Agriculture

Pita Taufatofua, Research Officer

Brian Scoullar, Training Adviser

Mana Latu, Acting Director of Education

Aleki Sisifo, Head of Advisory Services

Simi Tekiteki, Head, Curriculum Development Unit

Kerikeri Akauola, Curriculum Development Unit

George Moengangongo, Director, Institute of Rural Development

Sione Hausia, ALO

Pita Taufatofua, Research Officer

Conrad Engleberger, Advisory-Research Liaison Officer

Ifoni Maa'u Lemani, ACTA graduate, Agriculture Teacher

Alamati Taurakitaki, Agriculture Teacher

Mana Latu, Principal, Tonga College

I. Solomon Islands, May 23-28

Alik _____, Malaita Provincial District Officer
Alfred _____, Provincial Training Officer
Ben Kwanafia, Researcher
Naurua Luaseuta, ALO
Laurence Chase, Senior Research Officer
Peter Linton, Senior Research Officer
Zaheer Patel, UN Volunteer Agronomist
Ruth Liloqula, Pathologist
John Roughan, Technical Advisor, Solomon Islands Development Trust
Ezikiel Walaodo, Under Secretary, Ministry of Home Affairs & Nat'l
Dev (MHAND)
Martin Todd, Senior Field Officer, MHAND
Lemuel Maealatha, Chief Field Officer, MHAND
T. Gina, Under Secretary, Ministry of Education
John Jackets, Agriculture Teacher
Aaron _____, Agriculture Teacher and Teacher Trainer
D. Prince, Acting Curriculum Development Officer
Will! Betu, Director, Foundation for Peoples of the South Pacific
Barry Weightman, Consultant to Director of Agriculture, Vanuatu

Appendix C

USP/SOA-IRETA FACULTY

May 1984

Faculty	Funding Source	Degree	Nationality	
			Regional	Non-Regional
<u>Basic Agricultural Services</u>				
Mohammad Asghar	USP	Ph.D		X
William Cable	USP	M.S.	X	
Apeiu Tielu	USP		X	
Cindy Kahrman	PC	M.S.		X
Michael Tenneson	PC	M.S.		X
Vacant	SPRAD			
<u>Crop Sciences</u>				
Don Slade	CFTC	M.S.Agr		X
Jill Wilson	SPRAD	Ph.D.		X
John Finley	EEC	M.Agr.		X
M.reko Tofinga	EEC	M.Agr.	X	
Entomology - vacant	USP			
<u>Animal Sciences</u>				
C. van der Does	USP	M.S.Agr.		X
Vacant	USP			
Alapati Toomata	USP	B.S.	X	
John Low (on study leave for ag econ)	USP	B.Agr.	X	
<u>Agricultural Education/Extension</u>				
Harold Cushman	SPRAD	Ph.D.		X
Lafita'i Fuata'i	USP	M.S.	X	
Peggy Dunlop	USP	?		?

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Education consultant	WZ	Ph.D.		X
Michael Harrington	C	M.S.		X
James G	SPRAD	M.S.		X
Malcolm Hazelman (on study leave)	USP	M.S.	X	X
Roy Murray-Prior	JSP	?		X
<u>Agricultural Economics</u>				
Fred Opio	USP	?		X
Food Technology - vacant	USP			
<u>Agricultural Technology</u>				
Tavale Maiava	USP	B.S.	X	
Vacant	SPRAD			
Vacant	EEC			
<u>Library and Information Services</u>				
Robert Yehl	USP	M.S.		X
Vacant	SPRAD			
<u>Director of IRETA</u>				
Leonard Fernando	EEC	Ph.D.		X