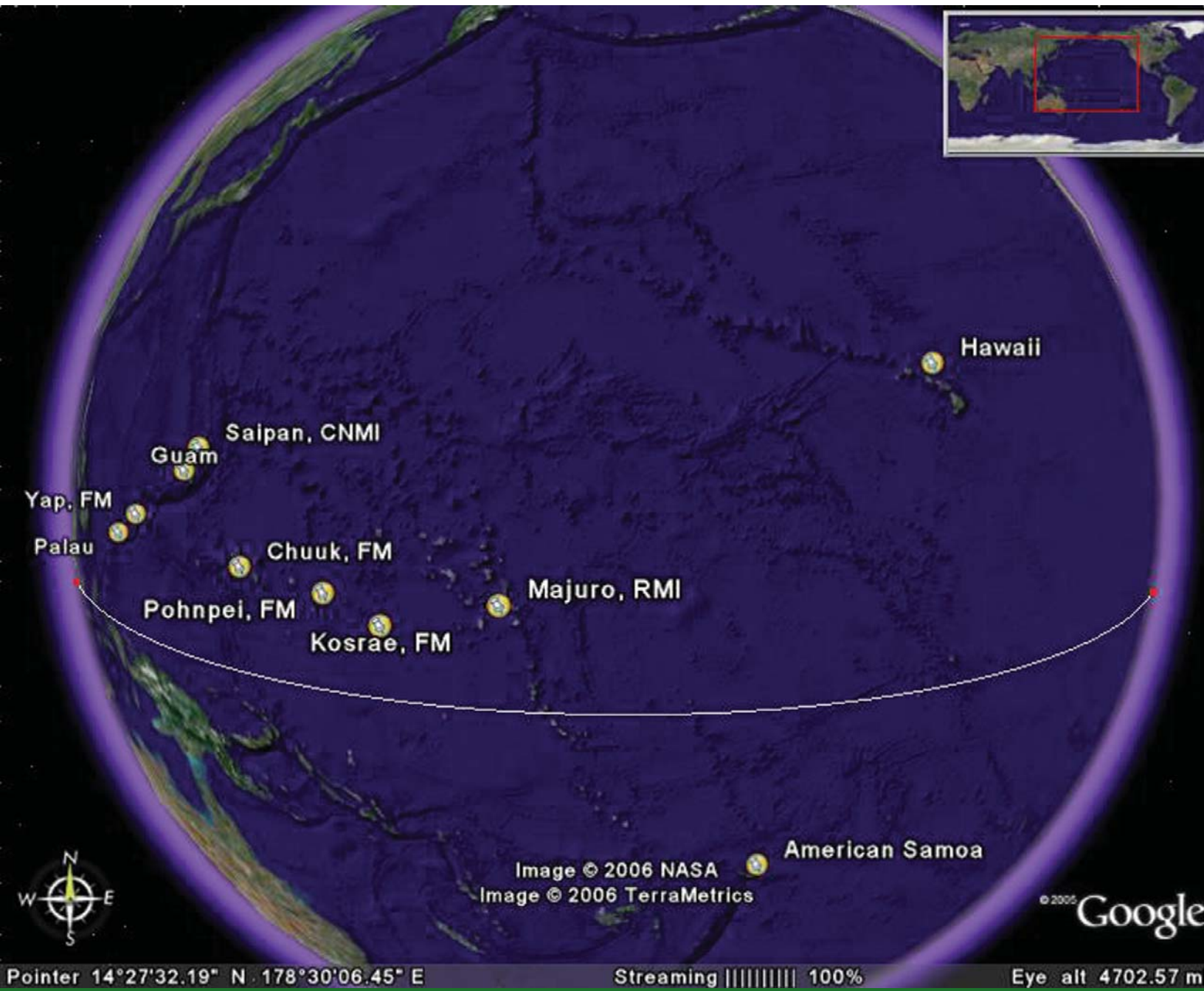


ADAP Project

Agricultural Development in the American Pacific



ADAP Board of Directors Meeting & Strategic Planning Meeting

January 8-11, 2007

Koror, Republic of Palau

CONTENTS:

ADAP Introduction.....	1
ADAP Funding Levels	2
Management Services Project	3
Human Resources & Capacity Building Project	7
Enrichment Opportunities Project.....	10
Leadership Development Opportunities	13
Communications, Information and Publications Services Project.....	18
Healthy Living in the Pacific Islands	22
ParaVeterinary Training Program via Distance Learning	25
Pacific Region Avian Influenza Workshop.....	28
Bioenergy Feedstock Assessment	31
Productivity Project.....	34
Distance Education Opportunities Project / Cari-Pac Update.....	36
Articulation Efforts Between the Five Pacific Land Grant Institutions	38
Trials of Banana Resistant to Black Leaf Streak and Other Diseases in Micronesia.....	40
Portable Extension Office for Program Literature Exchange (PEOPLE)	41
Better Crops in the Pacific Islands	43
American Samoa Community College Campus Report.....	46
College of Micronesia Campus Report.....	47
Northern Marianas College Campus Report	48
University of Guam Campus Report.....	50
University of Hawaii Campus Report.....	51

ADAP Introduction

The Agricultural Development in the American Pacific (ADAP) Project was formally organized by the five directors of the Land Grant institutions in Hawaii and the United States-affiliated Pacific Islands (USAPI) in 1988, with the deans/directors of the Land Grant institutions serving as the board of directors. The purpose of ADAP is to strengthen existing Land Grant programs by sharing and focusing resources on priority areas of common concern and interest. Priority areas are often unique to the Pacific region, having to do with tropical/subtropical island agriculture and cultural practices. Due to the unique natural and human resource base of the Pacific island agro-ecosystems, it is often not possible or appropriate to transfer results from temperate zone agricultural research, and materials for extension and teaching used by continental US Land Grant programs. ADAP supports applied research within the region, and the development of effective extension materials that are culturally appropriate. With these goals in mind, ADAP strives toward excellence:

ADAP Vision: ADAP enables sustainable environments, diverse economies, and strong communities.

ADAP Mission: ADAP advances the viability and security of Pacific Island agriculture and communities through collaborative programs that are culturally appropriate, socially acceptable, and economically viable and environmentally sustainable.

Participating institutions are American Samoa Community College, College of Micronesia, Northern Marianas College, University of Guam, and University of Hawai'i.

ADAP Funding Levels

ADAP Year	Fiscal Year	Actual ADAP Budget	% Change (Rescission)
Year 10	FY1997	\$533,403	
Year 11	FY1998	\$533,403	0.00%
Year 12	FY1999	\$527,904	-1.03%
Year 13	FY2000	\$527,904	0.00%
Year 14	FY2001	\$526,743	-0.22%
Year 15	FY2002	\$516,672	-1.91%
Year 16	FY2003	\$513,314	-0.65%
Year 17	FY2004	\$458,725	-10.63%
Year 18	FY2005	\$454,971	-0.82%
Year 19	FY2006	\$450,347	-1.02%
Year 20	FY2007	_____	_____

Management Services Project

Core Project

Project Coordination Team:

ADAP Project Manager and Regional Coordinators

Funding Allocations and Expenses:

	Budget	Actual Expenses
Year 13	\$263,210	\$265,466
Year 14	\$255,483	\$186,573
Year 15	\$258,092	\$264,264
Year 16	\$226,284	\$320,740
Year 17	\$216,535	\$209,068
Year 18	\$215,781	\$163,662
Year 19	\$234,056	\$0
Average (13-17)	\$243,921	\$249,222

PROBLEM STATEMENT AND POTENTIAL SOLUTION

Administrative services and program support are essential for planning and implementing ADAP activities for the five Land Grant institutions to collaborate on research, extension and training activities. Management Services is the primary means of collaboration for the ADAP Project.

Management Services includes the Home Office staff (project manager, coordinator and educational media specialist) based at the University of Hawaii with regional coordinators at each ADAP institution. The Home Office is responsible for organizing, planning, coordinating and providing overall support services for the ADAP project. They administer the USDA grant through the Research Corporation of the University of Hawaii (RCUH). Funds are allocated to the ADAP institutions in accordance with the plans of work, but distributed on a cost reimbursement basis. The Home Office maintains a fiscal system consistent with the needs of participating fiscal institutions, RCUH and USDA. Home Office staff prepares technical and administrative reports that promote the functions and accomplishments of ADAP. The Home Office provides administrative support for all UH-based ADAP projects. The regional coordinators are the link for the Home Office to communicate with the ADAP directors and project personnel throughout the region. Regional coordinators also provide support services to the project principal investigators and cooperators.

Management services is responsible for organizing the semi-annual ADAP board of directors meetings, at which the ADAP directors, project manager and coordinators plan, organize and make policy decisions for the project. They also maintain collaborative ties with other agencies.

RESULTS AND ACCOMPLISHMENTS FOR THE PERIOD: JULY 2006 TO DECEMBER 2006

American Samoa Community College (ASCC)

- Provided administrative support to ASCC ADAP projects.
- Strengthened agricultural programs in American Samoa.

- Promoted public awareness on Agricultural and Life Sciences degree programs throughout the Territory of American Samoa.

College of Micronesia (COM)

- Facilitated the organization and implementation of a series of leadership trainings co-sponsored by NMC and COM held in Saipan on August and Palau in December, 2006 respectively.
- Coordinated the development, the rolling out and the implementation of the COM Plan of Work (POW) activity reporting system in connection with the ADAP reporting system.
- Facilitated the successful completion of Mark Kostka's baccalaureate degree at the UH-Hilo campus.

Northern Marianas College (NMC)

- Mr. Ross Manglona has been officially named the new Director for CREES, who will also serve as the ADAP Director.
- The Director and Coordinator have been working closely with program leaders, staff and advisory council and bi-weekly meetings have been set up for activity reports. CREES staff has compiled, drafted and completed the FY2006 NMC Annual Report. Coordinator and the Finance Office staff will work diligently to monitor, prepare reports and submit them on a timely basis.

University of Guam (UOG)

- Submitted Balance Summary and Request for Reimbursement Report for period ending September 30, 2006. We were successful in spending all Year 17 ADAP funds before the December 31, 2006 deadline.
- Dr. Lee Yudin, UOG-ADAP Director, and Annie Santos, UOG-ADAP Coordinator, attended the 2006 Summer ADAP Board of Directors Meeting in Monterey, California, July 12-13, 2006.
- Kept the flow of communications between all ADAP offices.

University of Hawaii (UH)

- Jim Hollyer facilitated the second part of UOG - CNAS Research Station's Strategic Plan, September 14 - 15, 2006, and UOG – Extension's Strategic Plan, October 10-13, 2006. These plans were made with full participation of the community and map out work for the next 5 years.
- The Home Office provided administrative support to our collaborators and colleagues. Additionally, Vanessa Troegner (25% FTE) and Sharee Pepper (25% FTE) have been receiving financial support from the Agribusiness Incubator Program, thus reducing the salary/fringe expenses within the Home Office. Dennis Miyahara has been receiving financial support from the Healthy Child / Healthy Living in the Pacific Islands program (25% FTE) for his work on the HLPI/SPC Exercise video. Additionally, Vanessa Troegner's salary and fringe for three weeks was paid by the Pacific EMPRINTS project.
- The ADAP website (<http://www.ctahr.hawaii.edu/adap2/>), the Pacific Region Avian Influenza website (http://www.ctahr.hawaii.edu/adap2/Avian_Flu/index.htm) and the Pacific Islands Networking website (http://www.ctahr.hawaii.edu/adap2/Pacific_Initiative/index.htm) were updated periodically. Links to the Pacific Region Avian Influenza website can be found under Training Resources of the Pacific Agrosecurity Program (<http://www.pacific-agrosecurity.org/>).

- Prepared the first draft of the updated ADAP Coordinators Handbook, to help standardize the coordination of project, communication, and fiscal procedures for the project.
- Conducted follow-up survey on Leadership Development project participants.

ESTIMATED IMPACT OF THE PROJECT TO DECEMBER 2006

American Samoa Community College (ASCC) provided knowledgeable information to the people of the territory in agricultural programs so they can live better and healthier lifestyles.

College of Micronesia (COM) helped numerous staff gain essential skills in leadership, communication, resolving conflicts, managing complaints, supporting change, providing performance feedback, coaching job skills and delegating. Additional staff had gained knowledge in the new reporting system and additional knowledge in tropical agriculture.

Northern Marianas College (NMC) has worked to increase accountability, by implementing bi-weekly meetings for activity reports.

University of Guam (UOG) has worked to increase accountability, with increased communication between the ADAP Coordinator and CNAS Accountant: ADAP budget reports and requests for reimbursements are prepared and submitted to ADAP Home Office for processing. Expenditures are closely monitored to ensure that they are in compliance with project objectives. Administrative functions pertaining to the program are performed to include preparation and submittal of Balance Summary and Request for Reimbursement Reports, transfer of funds memos, project report for Board of Directors Meetings, and maintenance of ADAP project files.

At University of Hawaii (UH), by diversifying the Home Office, and providing support to other programs, we have lessened the salary and fringe expenses drawn from ADAP and reinvested the funds in the ADAP programs. Additionally, keeping the ADAP website, and the Avian Influenza website up-to-date, we provide a resource for our colleagues at UH and across the Pacific region.

CONTINUING ACTIVITIES: JANUARY 2007 TO JUNE 2007

At American Samoa Community College (ASCC), we plan to continue to support ASCC ADAP projects, support Student trainings for ASCC agricultural students, and support ASCC staff development trainings.

At the College of Micronesia (COM), we plan to continued to announce the availability of staff development funds and encourage participation, seek funding support for some staff to attend the April 2007 Administrative Officers Meeting where the reporting format for the new POW will be presented, and provide project progress reports for ADAP YR 18 and YR 19 projects.

At Northern Marianas College (NMC), we plan to hire a part-time office assistant to provide administrative support and work closely with the Coordinator to monitor all ADAP activities. Also, the ADAP Coordinator will create a student database for the ADAP Scholarship/Summer Apprenticeship program and we will plan and coordinate the 2007 Summer Internship Program.

At University of Guam (UOG), we plan to ensure survival of ADAP funds, better organize ADAP files, documents, and publications within office and input data on CNAS faculty into Pacific Land Grants PARS Database to increase awareness of our faculty specialties and facilitate collaborative research efforts.

At University of Hawaii (UH), we plan to finalize the ADAP Coordinators Handbook, distribute the text and CDs to colleagues, and upload the final version to the ADAP website. Also, we plan to complete a training module and brochure for the Pacific Accountability and Reporting Systems (PARS), print and distribute the brochure to increase awareness of the resource.

Human Resources & Capacity Building Project

Core Project

Project Coordination Team:

ADAP Project Manager and Regional Coordinators

Funding Allocations and Expenses:

	Budget	Actual Expenses
Year 13	\$80,000	\$62,790
Year 14	\$65,000	\$30,610
Year 15	\$60,000	\$45,811
Year 16	\$60,000	\$53,996
Year 17	\$60,000	\$47,107
Year 18	\$60,000	\$15,486
Year 19	\$80,000	\$0
Average (13-17)	\$65,000	\$48,063

PROBLEM STATEMENT AND POTENTIAL SOLUTION

The American Pacific Land Grant institutions and government agencies want to increase their levels of trained and competent staff in order to enhance the institution and government services and to advance local agricultural development (or its allied fields). One way to help increase the number of qualified employees is to provide high school and college students, i.e. potential future employees, and current government or ADAP institution employees, with the opportunity to compete for educational scholarships. ADAP has developed programs targeted at different stages of educational development. The funds are available to all Pacific Land Grants except University of Hawaii. The titles of the three educational scholarship programs are:

Financial Assistance for an Extension/ Research High School Apprenticeship Program

Justification: Low enrollment in agriculture and home economics classes in ADAP region high schools continues to deprive ADAP countries of future employees who are knowledgeable in these areas. A cursory survey of students reveals a lack of awareness of the educational opportunities and careers available in agriculture, home economics, and related fields.

Financial Assistance for attending a 2- or 4-Year College or an Accredited Virtual University Program

Justification: Local college scholarships are limited and awards are typically based on prioritized field of studies. At the present time, agriculture and home economics are not priority fields in most ADAP countries. Financial assistance can be used for U.S. or foreign institutions, but students going to Land Grant colleges are given preference. On-line or virtual degree programs are also considered for this assistance.

Financial Assistance for an Advanced Degree Studies Program

Justification: Land Grant staff is limited in the ability to expand or strengthen programs and to advance professionally. ADAP scholarships for advanced degrees are made available to meet this need. Financial assistance can be used for U.S. or foreign institutions, but students going to Land Grant colleges are given preference. On-line or virtual degree programs are also considered for this assistance.

RESULTS AND ACCOMPLISHMENTS FOR THE PERIOD: JULY 2006 TO DECEMBER 2006

American Samoa Community College (ASCC)

- Graduated and awarded certificates of completion to twenty ASCC ADAP 2006 Summer Institute Participants.
- Miss Marella Moe received her Associate of Science degree in Family and Consumer Sciences during the American Samoa Community College's fall 2006 commencement exercise, December 14, 2006.

College of Micronesia (COM)

- In the Financial Assistance for 2 or 4-Year College Program, Mr. Mark Kostka is completing his study for a BS degree in Tropical Agriculture at UH-Hilo at the end of December, 2006.
- In the Financial Assistance for Advance Degree (In-Service) Program, Mr. Robert Jackson is progressing well on his San Diego State University Master's Degree online program.

Northern Marianas College (NMC)

- The ADAP Scholarship provided financial support to 5 individuals pursuing an AA degree in Natural Resource Management. Two staff members are also receiving financial support. Ms. Patricia Coleman is pursuing a Bachelors Degree in Education through NMC and Mr. Lawrence Duponcheel is pursuing his Masters Degree through online courses.

University of Guam (UOG)

- Financial assistance was provided to Mr. Frank Alig, a Biologist III with the Fidian Hatchery, for courses he had taken Fall 2006.
- Travel expenses for James Hollyer, ADAP Project Manager, was funded to facilitate a Strategic Planning Workshop for the Agricultural Experiment Station, College of Natural and Applied Sciences at UOG, June 14-16, 2006 and a second travel to again facilitate the AES Strategic Plan Retreat to complete the Strategic Plan work started in June, September 14-15, 2006.
- Travel expenses for Dr. Sharee Pepper, Grantwriting Coach, was funded to participate in the 'Writing Winning Grants Workshop' at UOG on October 24-25, 2006. Dr. Pepper was invited to provide consultations with interested faculty regarding possible funding options for their research projects.

ESTIMATED IMPACT OF THE PROJECT TO DECEMBER 2006

The impact of this project is an increased student enrollment in the Agriculture and Life Sciences Associate of Sciences degree programs at the American Samoa Community College.

At the College of Micronesia (COM), there is an increase in the number of qualified staff who can provide better services to the local agricultural development.

At Northern Marianas College (NMC), the ADAP Scholarship Program has greatly assisted students, financially, who are pursuing their AA degree in Natural Resource Management and staff members pursuing higher education. The success of this program has played an important role in attracting students to the field of Agriculture and Family Consumer Sciences.

At University of Guam (UOG), the financial assistance provided to Mr. Alig will aid him towards the completion of his program in Environmental Science. The development of a strategic plan for the Agricultural Experiment Station at CNAS will provide direction for the faculty to follow to bring the station up to where they envision it to be. The grant writing workshop and the one-on-one consultation provided by Dr. Sharee Pepper was very beneficial to the CNAS faculty in assisting them to write and submit grants for research projects and eventually get approved for funding.

CONTINUING ACTIVITIES: JANUARY 2007 TO JUNE 2007

During the next six month, American Samoa Community College (ASCC) will encourage the CNR staff to enroll in the advanced degree studies program. Additionally, CNR is looking into having staffs enroll in on-line programs.

College of Micronesia (COM) will continue to announce the availability of HRCB funds and encourage students and staff to continue their education in the field and agriculture, aquaculture and home economics. Also, there are plans to announce the high school research/extension apprenticeship program.

Northern Marianas College's ADAP Director and Coordinator will work with the Science department to promote the NRM degree program through presentations at the high school and college level.

At University of Guam (UOG), we hope to continue to provide financial assistance to those individuals, currently benefiting from this project towards the completion of their degree program. In addition to Frank Alig, there are two more individuals under the program: Ms. June Calvo, under Resident Instruction and the Associate Director of AES, is pursuing a degree in Consumer and Family Sciences, and Ms. Jane Mendiola, Administrative Assistant with Cooperative Extension Service, is pursuing a degree in Business Management.

Enrichment Opportunities Project

Core Project

Project Coordination Team:

ADAP Project Manager and Regional Coordinators

Funding Allocations and Expenses:

	Budget	Actual Expenses
Year 13	\$20,000	\$15,613
Year 14	\$35,000	\$16,779
Year 15	\$35,000	\$45,044
Year 16	\$35,000	\$45,445
Year 17	\$35,000	\$34,155
Year 18	\$35,000	\$21,821
Year 19	\$55,000	\$0
Average (13-17)	\$32,000	\$31,407

PROBLEM STATEMENT AND POTENTIAL SOLUTION

The ADAP Enrichment Opportunity Project fills the need to increase institutional and governmental capability and credibility for regional agricultural development. Oftentimes, new initiatives must be implemented which usually require new guidelines and new regulations. There is a continuing need to provide staff development or training opportunities to enhance the productivity and efficiency of appropriate institutional and governmental employees. The successful transfer and adoption of knowledge will enhance the productivity and efficiency of those employees. To strengthen, improve and increase their skills, the land-grant directors need discretionary training funds to expand ADAP-sponsored activities or have staff and government employees partake in professional development or training activities.

RESULTS AND ACCOMPLISHMENTS FOR THE PERIOD: JULY 2006 TO DECEMBER 2006

American Samoa Community College (ASCC) supported CNR staff training and advanced degree studies programs.

College of Micronesia (COM) supported Ms. Julie Timothy's (Kosrae) participation in the HLPI meeting in Saipan, Mr. Robert Jackson's (Pohnpei Central Office) participation in the July 2006 PEC conference in Palau as part of his research project with the SDSU online MA degree program, and Dr. Nacanili Tuivavalagi participation in the "Winning Grant Writing Workshop" in Guam.

Northern Marianas College (NMC) supported Dr. Allan Sabaldica and Mr. Jacob Muna's participation in the Avian Influenza Training in Hawaii. EO Project funded their ticket and per diem from Tinian to Saipan.

University of Guam (UOG) continues to utilize the funds in this project to implement our Summer Research Apprenticeship Program for high school students. This summer we were able to offer five slots to high school students who expressed an interest in the field of science and conducting research work in an actual research laboratory in the college. The students were hired on a full-time basis for six weeks and were assigned to work with one of five research faculty who volunteered to take part in the program. The fields of research included (1) Entomology –

worked on CAPS ants survey and assisted in cataloguing and making slide mounts of scale insects, aphids, and mealybugs, (2) Biology – assisted in research on genetics of the pandanus varieties found on the islands that have been selected by locals as food items by learning and utilizing the PCR techniques, (3) Horticulture/Model Farm Project – assisted in the operations at the model farm located at our Yigo experiment station and determine if it can be self-sustaining at some point, (4) Soil Science – methods of preventing soil erosion and composting, and (5) Aquaculture – work on the tilapia hatchery project learning basic and advanced training in tilapia hatchery techniques. At the end of the program, a presentation session was held wherein each apprentice presented to the college faculty and staff their work experience and what they've learned during their brief employment with the college.

University of Hawaii (UH) staff completed computer training courses in MS FrontPage, a website design program.

ESTIMATED IMPACT OF THE PROJECT TO DECEMBER 2006

College of Micronesia (COM) benefited from the enhancements to the knowledge and skills of those staff who were recipients of the funds and in turn a positive implication on program management.

At the Northern Marianas College (NMC), this project gives us the opportunity to fund some professional development for our staff.

UOG's Summer Research Apprenticeship Program introduces the high school student to the field of research work within the different disciplines of science, with particular emphasis in agriculture. It is our intent that by exposing these students to actual hands-on training in an actual research laboratory that it might influence them to pursue a career in the field of research, and most especially in the field of agricultural research. One of our most recent high school students just received early acceptance into Princeton University.

At the University of Hawaii, the additional computer training courses allow staff members to expand their understanding of program applications and become better service providers.

CONTINUING ACTIVITIES: JANUARY 2007 TO JUNE 2007

American Samoa Community College (ASCC) plans to conduct staff development training. Select candidate for advanced degree studies program and selected candidate to begin enrollment on degree program spring 2007.

College of Micronesia (COM) plans to use the funds to support attendance at the upcoming April 2007 Administrative Officers Meeting and other training needs that may arise.

At the Northern Marianas College (NMC), the Director and Coordinator will focus on providing assistance to staff members who are interested in taking up professional development courses through our institution.

University of Guam (UOG) plans to continue the Summer Research Apprenticeship Program. We have had such a good response from the high school students each time we've offered the research apprenticeship program and we've attracted students of such high caliber, that we would like to continue to offer this program again next summer. Each summer we receive in excess of 25 applications from high schools students from the various public and private high schools on Guam for the summer apprentice program. With the funding allocated to Enrichment

Opportunities each year, we can only offer five apprentice slots each summer. By next summer, we should be able to offer an additional five slots due to funds from the Resident & Instruction Grants for Institutions for Higher Education in Insular Area, also known as CariPac. In its second year of funding, \$6,000 was approved for Student Assistantship/Support to be used to recruit, train and hire five high school students in a summer program with agricultural and food research scientists.

During Year 19, the University of Hawaii plans to support two educational opportunities to supplement the Leadership Development Project and address the issue of the role of administrators within the Land Grant system. The Deans/Directors workshop will highlight the role of administrators within the Land Grant System, the history of the Land Grant System, and a workshop on understanding the legislative process and its applicability to the Land Grant College. Due to the specialized nature of these workshops, we propose to contract Dr. Terry Nipp to create a single workshop to present these topics for the deans and directors of the Pacific Land Grant institutions. The first workshop (January 8-11, 2007), planned in conjunction with the ADAP Board of Directors meeting, will have seven attendees: Dr. Andrew Hashimoto (Dean of the College of Tropical Agriculture and Human Resources, University of Hawaii), Dr. Dan Aga (Dean of the College of Agriculture, Human and Natural Resources, American Samoa Community College), Dr. Lee Yudin (Dean of the College of Natural and Applied Sciences, University of Guam), Dr. Jeff Barcinas (Director of Cooperative Extension Service, University of Guam), Dr. Singeru Singeo, (Dean of the Land Grant Programs, College of Micronesia), Mr. Ross Manglona (Director of Cooperative, Research, Extension and Education Services, Northern Marianas College), Dr. Carol Lewis (Dean of the School of Natural Resources and Agricultural Sciences, University of Alaska Fairbanks), and Mr. Thomas Taro (VP of Cooperative Research and Extension, Palau Community College). Travel expenses for these attendees have been allocated previously within the Management Services budget, for the ADAP meeting, Winter 2007. The second workshop, still in planning, will similarly pair the workshop with a regional meeting.

Additionally, during Year 19, the University of Hawaii plans to create a training module to address the issue of understanding, measuring and reporting project impact. The final product will be loaded on the Pacific Accountability and Reporting System (PARS) database to teach individuals what kind of impact to measure, and report. Additionally, we plan a series of workshops for researchers, faculty, and staff, focused on understanding the importance of project impact, understanding how to measure and report project impact, and how to design a project or experiment with built-in measurements of results and impacts. We expect that this work will take one employee (Dr. Sharee Pepper) 9.5 months to accomplish at 10hrs/wk (.25 FTE).

Leadership Development Opportunities

Core Project

Project Coordination Team:

ADAP Project Manager and Regional Coordinators

Funding Allocations and Expenses:

	Budget	Actual Expenses
Year 13	\$5,520	\$4,574
Year 14	\$0	\$0
Year 15	\$34,000	\$33,959
Year 16	\$34,000	\$27,176
Year 17	\$34,000	\$40,909
Year 18	\$78,075	\$48,160
Year 19	\$50,000	\$0
Average (15-17)	\$34,000	\$34,015

PROBLEM STATEMENT AND POTENTIAL SOLUTION

The establishment of the Pacific Land Grants, especially American Samoa Community College, College of Micronesia, Northern Marianas College, and the University of Guam, has been critically important to these small but growing regions of the Pacific. One of the areas that are often overlooked in building such an institution from the ground-up is the consistent development of leadership qualities within the staff. Without such skills, these institutions, including the College of Tropical Agriculture and Human Resources at the University of Hawai'i, will not make the organizational strides required by their clients.

ADAP will send one representative from each ADAP institution to the ESCOP/ACOP leadership Development program as often as funding is available.

In the ADAP Year 18 proposal, additional funds were provided to each institution to cover the increased program costs, increased registration costs, and increased travel costs. For the current candidates to the LEAD21 (2005-2006), funds in Year 16 and Year 17 should be completely expended, before requesting additional funds. Should any institution require additional funds for 2005-2006 candidates, please forward a request to the Home Office. Year 18 funds will become available in September for the Leadership candidates beginning their programs in June 2006 (application deadline April 2006).

At the January 2006, ADAP Board of Director meeting, the board voted to allow each institution the opportunity to use Year 17 funds for the Leadership Development in the 21st Century (LEAD21) classes, or to use the same funding for specific leadership development activities. The Board of Directors requested that each institution either submit the name of their LEAD21 participant, or a description of the individualized leadership development programs.

CURRENT CANDIDATES (LEAD 21 CLASS 2006-2007) (MARCH 2006 TO FEBRUARY 2007)

UOG: Dr. James McConnell, professor in Ornamental Horticulture, CNAS/AES

UH: Dr. Halina Zaleski, Department Chair, Human Food, Nutrition, and Animal Sciences (HFNAS), CTAHR

ALTERNATIVE LEADERSHIP OPPORTUNITIES:American Samoa Community College (ASCC)

The Community & Natural Resources (CNR) Division of the American Samoa Community College will conduct staff and faculty training to update the staff on land grant and sea grant programs, Human Resources policies and procedures, and health and well being counseling. ASCC's individualized leadership program will better meet the needs of ASCC CNR programs. ASCC has a major need for local staff to complete undergraduate or graduate degree program. Currently, CNR has approximately seventy personnel hired locally and off-island and only six with bachelor's degree, three with master's degree and one with a doctoral degree. Currently, there is no local funding available to support leadership and staff development for ASCC CNR personnel.

College of Micronesia (COM) and Northern Marianas College (NMC)

Two leadership trainings were organized by NMC and COM through the NMC Business Development Center for 21 program leaders from COM Central Office, NMC-CREES, COM-FSM, and PCC. Both trainings were conducted by Dr. Kenneth R. Shankweiler, who was the Chairman of Continuous Improvement Corporation, a \$4 Billion Dollar Fortune 500 Corporation with 138 companies such as: Teledyne Water Pik, Teledyne Brown Engineering, Teledyne Electronics, Teledyne Alvac, Teledyne Ryan Aeronatics, etc. Dr. Shankweiler was also the Director of Engineering for Teledyne Rodney Metals, serving in this position concurrently with the above Continuous Improvement Chairmanship, utilizing techniques of delegation and teamwork.

The workshops covered in both trainings were: Essential Skills of Leadership, Essential Skills in Communicating, Resolving Conflicts, Managing Complaints, Supporting Change, Providing Performance Feedback, Coaching Job Skills and Delegating.

COM support the continuation of local leadership opportunities. Instead of training only one person, we were able to trained 21 individuals, which is an immense accomplishment with the funds allocated to both institutions.

NMC felt that the leadership workshops were a huge success. Being able to plan and coordinate our own leadership development workshops gives us the opportunity to specialize the workshops to accommodate our needs as individuals and as an institution as a whole. The funding that was granted to our institution is adequate enough if our workshop/training are held on island.

OPTIONS TO CONSERVE FUNDS DURING FY2007 (POST-ADAP YEAR 19)

University of Hawaii: Postpone UH's annual participation in the LEAD21 sessions offered by the Fanning Institute, for one year. This is necessary because if funding is not reestablished in FY2008, ADAP will not have sufficient funds for the participant's travel expenses to the program. The LEAD21(2007-2008) program begins in March 2007, and runs through February 2008. Canceling UH's participation will conserve approximately \$10,000. Should funding be reestablished earlier than FY2008, UH may choose to participate in other, local leadership opportunities, such as those held at the East-West Center.

PARTICIPANTS IN THE LEADERSHIP DEVELOPMENT PROJECT FROM 1999 TO 2007

Inst	Leadership Program	Year	Name		Current Position
ASCC	LEAD21 - 2006-07	2006-2007	-----	-----	
ASCC	LEAD21 - 2005-06	2005-2006	Eseta	Su'a-Kalio	ASCC CNR Office Manager/ADAP Coordinator
ASCC	ESCOP/ACOP - Class 14	2004-2005	Laura	Laumatia	University of Idaho
ASCC	ESCOP/ACOP - Class 13	2003-2004	-----	-----	
ASCC	ESCOP/ACOP - Class 12	2002-2003	Donald	Vargo	ASCC CNR Research Coordinator
ASCC	ESCOP/ACOP - Class 11	2001-2002	Tavita	Elisara	ASCC CNR Ag. Instruction Coordinator
ASCC	ESCOP/ACOP - Class 10	2000-2001	-----	-----	
ASCC	ESCOP/ACOP - Class 9	1999-2000	Aufai	Areta	ASCC CNR Extension Coordinator
COM	LEAD21 - 2006-07		-----	-----	
COM	LEAD21 - 2005-06		-----	-----	
COM	ESCOP/ACOP - Class 14	2004-2005	Diane	Myazoe	Dean, CMI-CRE
COM	ESCOP/ACOP - Class 13	2003-2004	-----	-----	
COM	ESCOP/ACOP - Class 12	2002-2003	-----	-----	
COM	ESCOP/ACOP - Class 11	2001-2002	-----	-----	
COM	ESCOP/ACOP - Class 10	2000-2001	Karen	Kupena???	
COM	ESCOP/ACOP - Class 9	1999-2000	-----	-----	
UOG	LEAD21 - 2006-07	2006-2007	Jim	McConnell	
UOG	LEAD21 - 2005-06	2005-2006	David	Crisostomo	
UOG	ESCOP/ACOP - Class 14	2004-2005	Peter	Barcinas	
UOG	ESCOP/ACOP - Class 13	2003-2004	Greg	Weicko	
UOG	ESCOP/ACOP - Class 12	2002-2003	Lee	Yudin	
UOG	ESCOP/ACOP - Class 11	2001-2002	Ross	Miller	
UOG	ESCOP/ACOP - Class 10	2000-2001	Roland	Quitugua	
UOG	ESCOP/ACOP - Class 9	1999-2000	-----	-----	
NMC	LEAD21 - 2006-07	2006-2007	-----	-----	
NMC	LEAD21 - 2005-06	2005-2006	-----	-----	
NMC	ESCOP/ACOP - Class 14	2004-2005	-----	-----	
NMC	ESCOP/ACOP - Class 13	2003-2004	-----	-----	
NMC	ESCOP/ACOP - Class 12	2002-2003	-----	-----	
NMC	ESCOP/ACOP - Class 11	2001-2002	Jim	Currie	
NMC	ESCOP/ACOP - Class 10	2000-2001	Steven	Hill	
NMC	ESCOP/ACOP - Class 9	1999-2000	-----	-----	
UH	LEAD21 - 2006-07	2006-2007	Halina	Zaleski	Department Chair, HFNAS
UH	LEAD21 - 2005-06	2005-2006	Kenneth	Grace	Department Chair, PEPS
UH	ESCOP/ACOP - Class 14	2004-2005	Harold	Keyser	Maui Couty Adminstrator, Kahului Ext. Office
UH	ESCOP/ACOP - Class 13	2003-2004	Rachel	Novotny	Director - Center for Health Research, Kaiser Permanente
UH	ESCOP/ACOP - Class 12	2002-2003	Robert	Paull	Department Chair, TPSS
UH	ESCOP/ACOP - Class 11	2001-2002	Doug	Vincent	Special Director Contracts and Grants
UH	ESCOP/ACOP - Class 10	2000-2001	Ron	Mau	Specialist, PEPS
UH	ESCOP/ACOP - Class 9	1999-2000	-----	-----	

COURSE OFFERINGS FOR LEADERSHIP DEVELOPMENT AT THE UNIVERSITY OF HAWAII**Art of Leadership Certificate* - UHM/Outreach College - Institute for Business and Professional Dev.**

	No.	Module hours	Module name	Cost / pp
	1	4	The basic principles for a collaborative workplace	\$95
	2	4	The leader in each of us	\$95
	3	3.5	Personal strategies for navigating change	\$95
	4	4	Coaching: bringing out the best in others	\$95
	5	4	Managing your priorities	\$95
	6	4	Influencing win-win outcomes	\$95
	7	3.5	Proactive listening	\$95
	8	4	Expressing yourself: presenting thoughts and ideas	\$95
	9	4	Giving and receiving constructive feedback	\$95
	10	3.5	Giving recognition	\$95
	11	4	Handling emotions under pressure	\$95
	12	4	Moving from conflict to collaboration	\$95
	13	7.5	Identifying work priorities and setting verifiable goals	\$195
	14	3.5	Gaining commitment to preset goals	\$95
	15	3.5	Correcting performance problems	\$95
TOTAL		61		\$1,525
Additional Offerings:		4	Using the Personal Style Inventory (to understand your learning/work style and that of others)	\$65/pp
		2	Ethics in the Workplace	\$350/ flat fee for min 10 p
		8	Managing Conflict in a Multicultural Context	\$2,500/ flat fee for course, including materials.
		4	Cultural Identity and Leadership	\$1,250/ flat fee, including materials.

140

*Art of Leadership (non-credit) Certificate program - complete 12 of 15 modules

Communications, Information and Publications Services Project

Core Project

Project Coordination Team: ADAP Project Manager and Regional Coordinators, and Eileen Herring (UH Hamilton Library)

Funding Allocations and Expenses:

	Budget	Actual Expenses
Year 13	\$20,530	\$15,696
Year 14	\$17,630	\$7,529
Year 15	\$19,580	\$21,182
Year 16	\$63,030	\$40,353
Year 17	\$63,190	\$50,263
Year 18	\$20,730	\$17,145
Year 19	\$20,030	\$0
Average (13-17)	\$36,792	\$27,004

PROBLEM STATEMENT AND POTENTIAL SOLUTION

The ADAP Communications, Information and Publications Service (CIPS) project was created to coordinate and address the information needs of the ADAP institutions, communities and clientele on a regional basis. This project will help provide and make accessible, appropriate information and materials that will benefit the American Pacific region and encourage economic and agricultural sustainability. As a result of more open and immediate access to information, duplication of work in the region will be reduced, leading to more efficient use of fiscal and human resources. The increased utilization of electronic communication capabilities can greatly reduce travel costs for various meetings, training, and workshops.

The Library Services Project is a small UH-based project under the CIPS umbrella. The libraries of the Pacific Land grants do not have the library resources (both hardcopy, and electronic) that the University of Hawaii has. The Library Services Project provides one-on-one assistance in retrieving research journals articles, and books. These services allow researchers across the Pacific access to current studies in their field, providing strong groundwork for research and extension projects.

Grant Development and Capacity Building Project is a small project embedded in the CIPS project. Our goal is the educate faculty and staff within the American Pacific Land Grant institutions and government agencies in ways increase funding for research, education and extension projects. Too often, grant workshops (sponsored by the USDA) take a "one-size fits all" approach to teaching how find, and apply for grants. Dr. Sharee Pepper is a grantwriting coach. She advises researchers on a one-on-one basis, providing valuable feedback on writing style, language usage, formatting, experimental design, and project scope, as well as, providing guidance and answering questions about the grant submittal process.

RESULTS AND ACCOMPLISHMENTS FOR THE PERIOD: JULY 2006 TO DECEMBER 2006

American Samoa Community College (ASCC) provided internet access to the faculty and staff of ASCC CNR. At College of Micronesia (COM) CIPS funds in YR 17, allowed us to

purchase much needed printers and digital cameras to support our programs. However in YR 18 with decreased in our allocation, funds were used mostly to support our internet connection and for other communication cost. At the Northern Marianas College (NMC), program brochures for the Rodent Control and Betelnut Control program were ordered and printed for distribution to the community.

LIBRARY SERVICES STATISTICS (07/01/06 – 12/31/06)

Location	Searches	Articles	Book Loans	Hours	Value
ASCC	0	26	1	14.5	\$428.00
COM-FSM	0	0	0	0.0	\$-
CMI	0	4	0	1.5	\$63.00
NMC					
Saipan	6	6	0	7.0	\$333.25
Tinian	0	1	0	0.5	\$15.00
PCC	0	1	0	0.5	\$15.00
UOG	0	11	0	5.0	\$170.50
SPC-Fiji	0	10	0	3.0	\$150.00
Total	6	59	1	32.0	\$1,174.75

*The figures given in the "Value" column are based on the current rate schedule of the University of Hawaii at Manoa Library's External Services Program. (ESP). ESP provides library services for non-UH Manoa patrons. ESP charges fees on a cost-recovery basis.

THE TRADITIONAL PACIFIC ISLAND CROPS WEB SITE (AGNIC PARTNER)

The Traditional Pacific Island Crops Web Site provides access to Pacific relevant full-text electronic resources about 12 traditional Pacific Island Crops: Bananas and Plantains (*Musa sp.*), Betel Nut (*Areca catechu*), Breadfruit (*Artocarpus altilis*), Cassava (*Manihot esculenta*), Coconut (*Cocos nucifera*), Kava (*Piper methysticum*), Noni (*Morinda citrifolia*), Pandanus (*Pandanus sp.*), Sugarcane (*Saccharum officinarum*), Sweet Potato (*Ipomoea batatas*), Taro (*Colocasia esculenta*) and other Edible Aroids, Yam (*Dioscorea sp.*).

The Web site contains links to quality World Wide Web resources that deal with the production, marketing, and research aspects of these twelve important traditional Pacific Island crops. Related marketing and statistical sites, databases, and other reference sources are also included. The emphasis is on collecting full-text resources so that Pacific Islanders who have Web access but do not have access to library print resources can find the information they need to grow and market these crops. Each of the included resources has been identified and evaluated by Eileen for the quality of their information and relevance to Pacific island agriculture.

During the past eleven months (December statistics are not yet available), these pages have received 10,551 page requests (that translates into 22,556 "hits"). Noni and sugar cane continue to be the most popular crops with about 3,500 and 3,400 page requests respectively. Among the worldwide users of this information, the following Pacific island domains accessed these Web pages: .au (Australia), .ck (Cook Islands), .fj (Fiji), .fm (Micronesia), .nc (New Caledonia), .nz (New Zealand), .pf (French Polynesia), .pg (Papua New Guinea), .sb (Solomon Islands), .tv (Tuvalu), .vu (Vanuatu), .ws (Samoa).

During the past six months, the ADAP librarian answered 15 email reference questions from users throughout the world concerning these twelve crops.

Additionally, with Year 16 and Year 17 funds, the University of Hawaii purchased three agricultural textbooks for each land grant college library. These textbooks are available to both students and faculty at the school.

GRANT DEVELOPMENT AND CAPACITY BUILDING

- Compiled and e-mailed two newsletters every few weeks as the information becomes available. During the past six months 23 news letters have been generated with information on 10-20 grants per newsletter. One version describes currently available funding opportunities of interest to over 40 Pacific Land Grant staff and faculty and the second version of the newsletter was begun in January with a focus on grant opportunities (related to agricultural and nutrition) for the UH community college system which is now being sent to over 25 representatives from the ten campuses throughout Hawaii.
- Assisted with all aspects of grant development and submission are provided to those requesting support. For example, consultations with some recent clients included: Amy Brown, CTAHR; Diane Myazoe, COM, CMI; Jim Currie, COM, FSM; Glen Hontz, Kauai CC; Nicky Davison, CTAHR; Tracy Sylva, CTAHR; Jackson Phillip, COM, FSM; Nat Tuivanvalagi, CMI; Mari Marutani, UOG; Mele Letuli-Savea, ASCC.
- Attended regular meetings of the Human Use Committees (or Internal Review Board, IRB) for the UH and Queens Medical Center. These committees meet monthly to review all UH research that includes the use of human subjects (which provides an opportunity to stay current with UH research and issues). Also judge for UH medical student and faculty research posters.
- Assisted with the 5-day Pacific Avian Influenza Workshop and GPS/GIS Training for 36 participants from the Pacific Islands.
- Participated in the Guam Grant Writing Workshop and CNAS Research Conference. (Oct 23-25).

ESTIMATED IMPACT OF THE PROJECT TO DECEMBER 2006

American Samoa Community College (ASCC) has strengthened the communication system within ASCC CNR, particularly the internet service for the island of Tutuila, American Samoa, and the Manua Islands.

At College of Micronesia, our communication with the outside world is maintained and documentation and publication of our program activities has been greatly enhanced with additional digital cameras and printers.

At the Northern Marianas College (NMC), the printing of additional brochures for the Rodent and Betelnut Control program will be used to distribute to farmers and community for information and guidance about the programs.

Dr. Sharee Pepper's efforts have contributed to capacity building in the Pacific Island Land Grant institutions, the UH CTAHR staff and faculty, and the UH community college agriculture related staff and faculty by providing training on how to write successful grants and identifying possible funding sources. This project increases the resources and funding for agriculture related education, research, and extension programs and projects by supporting the development, and submission of grants for the UH and Pacific Land Grant institutions.

CONTINUING ACTIVITIES: JANUARY 2007 TO JUNE 2007

Eileen Herring, the ADAP Librarian, will be attending two conferences: The AgNIC Coordinating Committee will be held May 10-11, 2007 in Starkville, Mississippi at Mississippi State University. Ms. Herring will attend to support the Traditional Pacific Island Crops Web Site. Pacific Islands Association of Libraries and Archives (PIALA) Conference 2007 will be held in November in Saipan. Ms. Herring will attend to represent the ADAP project and the Hamilton Library and collect research and extension materials for the ADAP Project and the Hamilton Library.

Healthy Living in the Pacific Islands

Formerly Food Security Project

Principal Investigator:

Dr. Rachel Novotny (University of Hawaii)

Project Administrator:

Nicola Davison (University of Hawaii)

Co-PI's:

Ansina Kony (College of Micronesia-FSM/Chuuk, Cooperative Research & Extension), Julie Timothy (College of Micronesia-Kosrae, Cooperative Research & Extension), Janet Nemra (Ministry of Health and Environment, Majuro, RMI) & Nelly Lakabung (College of the Marshall Islands), Josepha Tutii (Palau Community College, Cooperative Research & Extension), Pat Coleman (Northern Marianas College, CNMI Cooperative Research, Extension & Education Service), Peter Barcinas (University of Guam, College of Agriculture & Life Sciences), Eric Enos (Learning Center at Ka`ala Farms).

Funding Allocations and Expenses:

	Budget	Actual Expenses
Year 12	\$0	\$14,976
Year 13	\$40,044	\$38,019
Year 14	\$50,000	\$48,539
Year 15	\$110,000	\$191,729
Year 16	\$0	\$0
Year 17	\$25,000	\$43,545
Year 18	\$9,775	\$7,255
Year 19	\$0	\$0
Total	\$234,819	(\$344,063)

PROBLEM STATEMENT AND POTENTIAL SOLUTION

The HLPI Project is working to reduce the disparity in prevalence of chronic (lifestyle) diseases in Pacific Island communities. Specific objectives are: to increase production and consumption of local foods, to increase physical activity and to increase local food production capacity.

HLPI implements programs tailored to the unique environment of each island. These programs also build the capacity of our local partners. Initiatives for monitoring and surveillance of health, particularly in the child population, provide baseline data for designing programs and interventions.

HLPI received approximately \$340,300 as start up funds through the Agricultural Development in the American Pacific (ADAP) (2000-2005). These funds were instrumental in leveraging \$70,000 from Centers for Disease Control and Prevention and \$52,000 from University of Uniformed Services for nutritional assessment work (2003). A recent \$1 million USDA National Research Initiative (NRI) grant (2004-2008) partners HLPI with the Cancer Research Center of Hawaii, Johns Hopkins Bloomberg School of Public Health, Wai'anae Coast Comprehensive Health Center (Hawai'i) and Waimanalo Health Center.

Early funding from ADAP allowed each country to implement their own programs, within the three specific HLPI objectives. Current USDA-NRI funding ties each island's programs to NRI

grant objectives – a Pacific diet tracker computer program ('PacTrac') and a food system intervention to increase healthy food availability

During Year 17, we focused on two key activities: follow up to nutritional assessment work, and staff professional development. Following the work done on nutritional assessment in American Samoa and CNMI, the information needed to be more widely distributed and communicated to various sectors of the community. HLPI personnel made site visits to American Samoa (Feb 2005) and CNMI (Dec 2005) to make presentations to community leaders/legislators, healthcare professionals, educators, and communities members. By sharing the information collected by the HLPI project, the island communities will become more aware of the problems associated with sub-optimal nutrition in their children, offering an opportunity to make changes at many levels (legislative, institutional, community and individual). We continue to work with these communities to ensure the information is available for targeted project activities and program planning in the future.

In our efforts to increase staff development, awards of up to \$1,000 each were made to HLPI co-PI's for staff development and capacity building. During the 2005 HLPI workshop we were able to offer co-PI's the opportunity to receive training in MS Excel, MS Powerpoint and grant writing. The MS Excel will help staff when preparing budgets, the Microsoft PowerPoint will enable staff to prepare educational materials to enhance communication with the community and clientele). The grant writing workshop will be used as the basis for a participatory grant writing process, to take place in early 2006, with the goal of submitting a jointly written and submitted proposal to the Robert Wood Johnson Foundation for a physical activity grant. This will address our goal of capacity building within the institution and region, for longer term project sustainability.

During the January 2005 Board Meeting, an additional \$20,000 (Year 17) was allocated to HLPI. The additional ADAP HLPI funds have enabled the sites to build on previous HLPI activities which are not related to the NRI grant. Most of the activities involve educational programs which are targeted towards increasing knowledge among the local communities, using locally adapted and culturally appropriate materials.

Year 18, HLPI proposed the inclusion of Kosrae as a second community outreach and research center in the Federated States of Micronesia. Funding support from ADAP for one year has allowed the co-PI from Kosrae to attend the October 2005, HLPI meeting and will allow Kosrae to implement HLPI project activities in 2005-2006.

RESULTS AND ACCOMPLISHMENTS: JULY 2006 TO DECEMBER 2006

American Samoa Community College (ASCC)

- Preparing a report on Food Source Surveys
- Collecting additional recipe information for PacTrac

College of Micronesia (COM)

- RMI:
 - Collecting additional recipe information for PacTrac
 - Adapting Healthy Foods materials for local use
- Palau:
 - Conducting survey on Food Sources
 - Collecting additional recipe information for PacTrac

- Chuuk:
 - NCD booklet (ADAP funds)
- Kosrae:
 - Taro promotion and walking program (ADAP funds)

Northern Marianas College (NMC)

- Working with UH-HLPI on manuscripts to be published in peer reviewed journals on survey results (2 submitted – breastfeeding & decreased overweight & *Acanthosis nigricans*). Working on analysis of CNMI child diets.

University of Guam (UOG)

- Collecting additional recipe information for PacTrac
- Preparing a report on Food Source Surveys

University of Hawaii (UH)

- Data analysis of CNMI survey & presentations in CNMI
- Collection of post-intervention data (Healthy Foods)
- Evaluation of PacTrac program for dietary data collection
- PacTrac to be posted & maintained on the CTAHR-Center of the Family website
- HLPI project administration and support

HLPI UPDATE PROVIDED BY DR. RACHEL NOVOTNY

During this period, Rachel Novotny, Principal Investigator, moved to Kaiser Permanente as the Director of the Center for Health Research (CHR) Hawaii in Oct '06. As of January 2007, she continues to retain a 10% appointment at UH to work on HLPI and the NRI (HPCP) grant. Nicky Davison, Project Manager, is at UH until the current NRI funding is expended, probably mid 2007. Our submission for a HLPI-HPCP NRI competitive renewal was not awarded. So currently we have no funding beyond mid-2007. Currently some sites have contracts for further work on HLPI-HPCP objectives. Work is expected to finish mid-2007. There is currently no funding for a 2007 HLPI meeting, though we are still looking at a way to partner with EFNEP.

Many options for continuing HLPI work was discussed during the HLPI meeting in Saipan in 2006. Co-PI's felt 2006-2007 should be transitional year, while Rachel learns Kaiser environment, we get input from ADAP directors, and we evaluate program accomplishments to date. The Co-PI's would like to remain connected to the Land Grant system (UH) if a suitable mechanism can be identified. We will conduct a program evaluation in 2007 to determine project direction and future. The future of HLPI is evolving into more of a coalition than a project. We will continue to explore and discuss options for the future development of HLPI.

ParaVeterinary Training Program via Distance Learning

Coordination Team:

ADAP Project Manager and Regional Coordinators

Funding Allocations and Expenses:

	Budget	Actual Expenses
Year 11	\$55,000	\$54,299
Year 12	\$37,538	\$40,279
Year 13	\$84,000	\$79,049
Year 14	\$103,630	\$0
Year 15	\$0	\$74,878
Total	\$280,168	\$248,506

PROBLEM STATEMENT AND POTENTIAL SOLUTION

Diseases and poor management of livestock have been recognized as major limitations to animal production in the Pacific Islands. As significant as public health and food security are to these countries, there is also an urgent need for in-country, in-service training for animal industry and extension workers, farmers and the community, to meet basic veterinary service requirements in rural areas. Our continuing effort is to develop and distribute effective distance learning ParaVeterinary training materials to provide a basic level of animal health and husbandry education to local extension personnel and to community leaders.

PARAVET UPDATE FROM THE SPC WEBSITE

(WWW.SPC.INT)

“The current Regional Para-veterinary (PARAVET) training project represents Phase 2 of the project. Phase 1 of the project (the development of the Introductory or Basic module) was completed in 2001 and has been piloted in Samoa in 2003.

“Phase 2 of the project, which provides for the development and delivery of a further 5 modules began on 1st November 2002 with the recruitment of the Animal Health and Production Training Specialist (AHPTS).

“Phase 3 of the project (implementation of the Introductory or Basic module) which is partially funded by the Government of Taiwan (ROC), SPC core and NZAID funds is being implemented in parallel with Phase 2.”

FUTURE PLANS FOR PARAVET PROJECT

In the next few months, we hope to reconnect with USAPI ParaVet participants, and conduct follow-up survey.

ParaVeterinary Training Level 1 Graduates	
Country / Island (training dates)	ParaVet Graduates
American Samoa (2004)	4
Cook Islands & Tuvalu Islands (2005)	27
CNMI (2004)	
<i>Saipan:</i>	5
<i>Tinian:</i>	3
<i>Rota:</i>	3
FSM (2004)	
<i>Chuuk:</i>	1
<i>Kosrae:</i>	1
<i>Pohnpei:</i>	1
<i>Yap:</i>	6
Marshall Islands (2004)	2
Palau (2004)	4
Samoa (2004)	12
Solomon Islands (2005)	23
Vanuatu (2006)	21
Total	113

Pacific Islands Distance Diagnostic and Recommendation System

Began with excess funding from ParaVet Training Program

Principal investigator: Mark G. Wright (University of Hawai'i)
 Coordination Team: ADAP Project Manager and Regional Coordinators
 Funding Allocations and Expenses:

	Budget	Actual Expenses
Year 14	\$0	\$86,574
Year 15	\$0	\$0
Year 16	\$0	\$0
Year 17	\$25,000	\$26,542
Year 18	\$0	\$0
Year 19	\$6,000	\$0
Total	\$31,000	\$113,115

PROBLEM STATEMENT AND POTENTIAL SOLUTION

The impacts of invasive insect pests, plant pathogens, weeds and other organisms on island ecosystems are severe, not only in terms of natural ecosystems, but also agricultural production and other human activities. The islands of the Pacific have been subjected to extensive invasion by pest species, and most agricultural practices have been impacted.

The newly developed and implemented Pacific Islands Distance Diagnostics and Recommendation System (PIDDRS) has the potential to contribute significantly to improving diagnostic services throughout the Pacific, as well as providing a database system for predicting the movement of invasive organisms, training staff in isolated locations, and building the capacity of local agricultural personnel.

RESULTS AND ACCOMPLISHMENTS FOR THE PERIOD: JULY 2006 TO DECEMBER 2006

At the University of Guam, the PIDDRS service continues to be utilized by faculty and researchers to identify insects, plants, plant diseases, etc.

A meeting of the National Plant Diagnostic Network (NAPD) was held at the University of Guam on December 7, 2006. One of the items of discussion that was brought up at this meeting was the importance and need for continued training on the PIDDRS systems for the territorial islands. It was recommended that training could be conducted on an 'ad hoc' and as necessary basis, but on-site. The University of Guam has individuals who are highly proficient in the use of PIDDRS. It was suggested that perhaps NPDN funds could be used to help facilitate this training.

Western Plant Diagnostic Network, University of California, Davis, is now paying for the annual database maintenance and website hosting fees to the University of Georgia (\$11,500 annually).

CONTINUING ACTIVITIES: JANUARY 2007 TO JUNE 2007

Dr. Mark Wright plans to develop a diagnostic tools section of the website by expanding the photo gallery to include 15-20 scientific illustrations during the next six months.

Pacific Region Avian Influenza Workshop

Externally funded by DHHS-National Institute of Health (09/01/05 - 08/31/06)

Principal Investigator

Ann Sakaguchi, MPH, PhD, Pacific EMPRINTS Project

Coordination Team:

ADAP Project Manager and Regional Coordinators

Funding Allocations and Expenses:

	Budget	Actual Expenses
Pacific EMPRINTS	\$114,000	\$102,000
Total	\$114,000	\$102,000

PROBLEM STATEMENT AND POTENTIAL SOLUTION

The Pacific EMPRINTS program is designed to provide a brief introduction to the principles of emergency management and preparedness with practical applications that can help you recognize and respond to an Avian Influenza outbreak should it occur. Outbreaks of Highly Pathogenic Avian Influenza (HPAI H5N1) have led to the deaths of millions of domestic fowl, particularly chickens and ducks in Asia and other parts of the world. The deaths were caused by either the Avian Influenza virus or through culling, as a preventative measure to halt and/or reduce the rate of spread of the virus to surrounding fowl. Experts believe that in the coming years, the HPAI H5N1 may spread to the Pacific Island region. This 5-day course is designed to assist you and your communities to better prepare for the potential outbreak of this dangerous disease.

RESULTS AND ACCOMPLISHMENTS FOR THE PERIOD: JULY 2006 TO DECEMBER 2006

The Pacific Region Avian Influenza Training Workshop was an incredible success. The 33 participants were offered the opportunity to learn either the hands-on, field surveillance and response activities (hereafter referred as the AI activities), or the Geographic Information System (GIS) surveillance and reporting activities (hereafter referred to as the GIS activities).

Geographic Information Systems (GIS) participants were selected based on nominations from the region's Bioterrorism Coordinators, and the local departments/ministries of health or human services. The Avian Influenza participants were selected based on nominations from the local governments, or the deans and directors of the Land Grant colleges. The response to the offer for the Avian Influenza and GIS training was overwhelming. The program limited the number of nominations for each island to five: two for the AI training, one for the GIS training, and two alternatives. The government of Yap considered the training opportunity so valuable that the nominations were conducted by the Lieutenant Governor.

The final participant list consisted of three participants from American Samoa, four participants from Chuuk (Federated States of Micronesia), three participants from Guam, three participants from Kosrae (FSM), three participants from Majuro (Republic of the Marshall Islands), five participants from Palau (Republic of Palau), four participants from Pohnpei (FSM), one participant from Rota (Commonwealth of the Northern Marianas Islands), two participants from Saipan (CNMI), two participants from Tinian (CNMI), and three participants from Yap (FSM).

The Pacific Region Avian Influenza Training Workshop began on August 1, 2006, and concluded on August 5, 2006. The program had two goals: Present an Avian Influenza education program that blends animal first-responder training, animal health training, emergency responder

training, Geographic Information Systems (GIS) training, and Global Positioning Systems (GPS) training. Build regional networks of human and animal health care professionals that will facilitate collaboration, co-learning, and the transmission of accurate information.

During the program, AI and GIS participants had separate learning goals. AI participants focused on disease transmission, hygiene and personal protective equipment, regional surveillance and response plans, contaminated site control and disinfection, and incident reporting using GPS. AI participants also learned about how to talk about Avian Influenza to their colleagues and to the public. GIS participants focused on developing the GIS plotting and mapping skills that will allow participants to assist with emergency management planning and response, with particular attention to the activities necessary in the event of an Avian Influenza outbreak, or foreign animal disease. AI and GIS participants worked toward their goals separately, but had many opportunities to learn from each other and work together during the Global Positioning Systems (GPS) field exercises, and the Avian Influenza community outreach portion of the workshop. These interactions were critical in reaching the program goal of building a collaborative network.

For the Avian Influenza participants, the Pacific Region Avian Influenza Training Workshop was the first time that animal first-responders in these countries had the opportunity to learn firsthand how to protect themselves and their communities should Avian Influenza come to their shores. The Avian Influenza program consisted of a series of lectures and hands-on demonstrations by regional and local experts. The instructors included Emergency Management professionals, Veterinarians, Wildlife Disease Specialists, Biologists, many Medical Doctors, and Extension Educator. The instructors were professionals from the Guam Department of Agriculture (Territorial Veterinarian), the US Fish and Wildlife Service (Pacific Islands Office), the US Geological Survey (National Wildlife Health Center), the Asia-Pacific Institute of Tropical Medicine and Infectious Diseases (John A. Burns School of Medicine), and the University of Hawaii. This approach was appropriate because it provided the participants with the most up-to-date information about Avian Influenza, and provided detailed information about the resources were available for regional surveillance and response. Additionally, the participants had an opportunity to speak with the FWS and USGS professionals who are planning a migratory bird surveillance program, which will include activities in American Samoan, Guam, Palau, Saipan, Tinian, Midway and Kwajalein (RMI).

The Avian Influenza participants also took part in a one-day field exercise. During the field exercise, participants encountered three distinct situations requiring them to evaluate the situation and take appropriate actions. The three situations were a single bird death, a multiple-bird death in a confined space, and dead bird sampling and shipping. Participants were evaluated on twelve (12) skills by the instructors. The skills included selection of proper personal protective equipment for the situation, proper methods for taking cloacal and throat samples, proper handling of samples for shipping, proper completion of an animal mortality report, and proper disposal of carcasses.

Upon graduation of the 5-day training program, AI participants were given an Avian Influenza response kit / Personal Protection Equipment kit for their institution.

For the Avian Influenza training program, the program created a learning guide, which included supplemental reading materials, supplemental text, and duplications of each instructor's presentation. Each learning guide has a CD with all the learning guide materials, and a selection of Avian Influenza planning guides, national pandemic plans, and educational materials from national and international agencies. With the CD, individuals can adapt the Avian Influenza presentations for their local institutions, and local audiences, using the instructor's presentations as a template.

The Pacific Region Avian Influenza Training Workshop had a 100% graduation rate. For graduation, AI participants were required to attend each lecture, and hands-on demonstration, and demonstrate each of the 12 Avian Influenza tasks/skills. For graduation, GIS participants were required to attend each lecture and classroom activity and complete the ESRI certification tasks.

The impacts of Pacific Region Avian Influenza Training Workshop are an increased awareness of Avian Influenza, and regional and national surveillance efforts that are in planning. This is critical because the AI and GIS participants are now prepared to provide assistance to regional and national surveillance initiatives, which will allow the FWS and USGS surveillance initiatives to begin earlier than planned. The program's focus on network building will have a direct impact on the emergency management planning, pandemic planning, migratory bird surveillance, and Avian Influenza response plans.

CONTINUING ACTIVITIES: JANUARY 2007 TO JUNE 2007

ADAP hosts the Avian Influenza webpage (www.ctahr.hawaii.edu/adap2/Avian_Flu) and maintains the contact lists for participants and instructors. Links to the Pacific Region Avian Influenza website can be found under Training Resources of the Pacific Agrosecurity Program (<http://www.pacific-agrosecurity.org/>).

At Northern Marianas College, five from the CNMI attended the Avian Influenza Workshop in Hawaii in August: Dr. Allan Sabaldica, Jacob Muna, Joe Randy Tudela, Perry Sablan, and Boris Maratita. The participants will be collaborating with the CNMI Coastal Resource Management Office in implementing the AI awareness program.

Bioenergy Feedstock Assessment

Principal Investigator: Goro Uehara (UH)
 Co-PIs: Robert Paull (UH)
 Mari Marutani (UOG)
 Project Manager: Richard Ogoshi (UH)
 Funding Allocations and Expenses:

	Budget	Actual Expenses
<i>Year 18</i>	\$35,610	\$5,103
<i>Year 19</i>	\$5,261	\$0
Total	\$40,871	\$5,103

PROBLEM STATEMENT AND POTENTIAL SOLUTION

Pacific Island nations are particularly vulnerable to the supply shortages and volatile prices of fossil fuels. Most islands import more than 90% of their transportation and energy fuels. Thus, there is an urgent need to develop local energy production capacity. Vegetal based fuels or biofuels produced from locally generated biomass on small to medium farms are a possible solution to decrease fossil fuel dependency in the Pacific Islands. Biofuels have significant environmental benefits over fossil fuels including low sulfur content, being carbon-dioxide neutral, and decreasing waste entering land-fills. Furthermore, establishment of biomass-based energy systems will create new jobs and improve local economies.

Biodiesel and ethanol are two promising candidate biofuels suitable for transportation and energy generation. The development of domestic feedstocks for conversion into biofuels is essential for increasing island energy security. An important challenge is the identification of feedstocks and conversion technology amenable for commercial production on small to medium farms with the environmental resources available on tropical and subtropical islands. ADAP-member nations contain a diversity of non-traditional plants that have potential as energy feedstocks whose yields could surpass traditional energy crops. The combination of the University of Hawaii's and University of Guam's experience in bioenergy, agricultural production, and soil science makes a strong team to identify energy feedstocks for the Pacific Islands. The proposed project will evaluate oil crops, cellulosic biomass, and commercial waste for use as feedstocks for bioenergy production. This investigation will provide baseline data essential for future studies to improve the energy security in the Pacific Islands.

The project will generate baseline yield data for potential energy crops in climatic/environmental conditions and farm sizes found in the Pacific Islands. In addition, the project will assess the availability of commercial waste streams in ADAP-member islands and small scale conversion technology for bioenergy production. It is expected that the baseline data generated by this project will lead to larger, more comprehensive collaborations in the future. This information will be valuable for developing possible solutions for Hawaii and Pacific Island nations to decrease their fossil fuel dependency and increase their energy security.

SCOPE OF WORK

The purpose of the project is to provide the foundation for developing solutions to reduce fossil fuel importation to the Pacific Islands. To that end, we will investigate candidate energy

crops, commercial waste streams, and small scale conversion technology that have the potential to be a part of the solution. The project will focus primarily on *Jatropha curcas*, coconut (*Cocos nucifera*), and fish oil for biodiesel production and *Panicum maximum* (guinea grass) for ethanol production. *Jatropha*, coconut, and guinea grass were chosen for their low resource input requirements, especially water, and their ability to thrive on poor soils, which promotes land reclamation and inhibits soil erosion. Crops, waste streams, and conversion technologies will be evaluated for small scale and larger production potential to reflect the range of environmental resources found in the Pacific Islands. The project will accomplish the following objectives:

- Evaluate the technical and economic feasibility for producing biodiesel from *Jatropha curcas*, coconut oil, and fish oil, and ethanol from guinea grass in the Pacific Islands.
- Evaluate the potential application of commercial waste streams and small scale conversion technology for energy production in the Pacific Islands.

PROPOSED ACTIVITIES

Objective 1

Climate and growing conditions have profound influence on crop yields which ultimately will determine the economic feasibility of the crops. Thus, the project will determine crop yields under various climatic/environmental conditions. Local varieties will be tested for optimal density, irrigation, and seed and fruit development.

Oil crops

Seeds and cuttings will be collected from *Jatropha curcas* varieties on Guam and the Hawaiian Islands. Test plots will be installed to evaluate growth rates under various conditions and seed and oil yields determined. Oil samples will be sent to Pacific Biodiesel for conversion into biodiesel and testing. Commercially available coconut oil and fish oil will also be sent to Pacific Biodiesel for conversion into biodiesel and testing. Pacific Biodiesel will submit biodiesel samples derived from *Jatropha*, coconut, and fish oil to a national laboratory for certification that the biodiesel meets international fuel standards.

Ethanol crops

A mower/baler will be rented and dry yields for *Panicum maximum* will be determined. Ethanol yields will be reported using standard estimates. Crop yields under various conditions and the effect of repeated re-cuttings will be determined.

The information gathered will be compiled in a database and reported to ADAP members for review and comment. Additionally, the database will be made available for subsequent retrieval and analysis by researchers, government agencies, and businesses.

Objective 2

A survey will be conducted to determine the availability of commercial waste streams such as restaurant waste oil and coconut husks for conversion into bioenergy. It is anticipated that some islands have significant amounts of restaurant waste oil and coconut husks, while others will have small amounts.

An online review of small scale conversion technology will be conducted to determine possible technologies for converting feedstocks into bioenergy. Results from this investigation will aid in the design of demonstration scale bioenergy refineries and highlight future areas for research and development.

PROJECT UPDATE BY DR. RICHARD OGOSHI

Accomplishments for the Bioenergy Assessment Project include production of seedlings, purchases of supplies and hiring of a student help. Six hundred and twenty six *Jatropha curcas* seedlings have been produced from cuttings and seeds. These seedlings were produced from cuttings and seeds collected from the Koko Head Crater Botanical Garden, Pearl City Urban Garden Center, and a private nurseryman in Waianae. Supplies for the field trial were purchased including the 7,200 square feet of weed mat, irrigation tubing, oil extractor, and immuno-assay antibodies to test for toxins in the *Jatropha* seeds. A student help, Kevin McLaughlin, was hired to assist in the field trial. The project is now poised to implement the *Jatropha* field trials.

Productivity Project

Coordination Team: Bill Wiedmann and Marty Parisien (formerly of High Technology Development Corporation), ADAP Project Manager and Regional Coordinators

Funding Allocations and Expenses:

	Budget	Actual Expenses
Year 16	\$40,000	\$40,000
Total	\$40,000	\$40,000

PROBLEM STATEMENT AND POTENTIAL SOLUTION

High Technology Development Corporation (HTDC) is part of a nationwide network of business and manufacturing specialists whose sole purpose is to provide small and medium-sized businesses with the help and solution they need to succeed. There are Centers in all 50 states, linked together through the Department of Commerce's National Institute of Standards and Technology (NIST). This makes it possible for even the smallest firms to have access to more than 2,000 manufacturing and business specialists including the staff of High Technology Development Corporation and their specialized knowledge about doing business. These are people with experience in both the manufacturing and service industries.

To stimulate agribusiness in the community grow a business perspective within the American region, the ADAP Board of Directors approved to fund the initiative by arranging 1-2 week visits of the HTDC group to each ADAP site (American Samoa, Guam, Micronesia, and Saipan). Each institution will be responsible for arranging their clients to attend a Lean Manufacturing Workshop and present their products and services where HTDC group will offer suggestions for improvement.

FINAL UPDATE BY BILL WIEDMANN AND MARTY PARISIEN (JAN 2006)

It has been one year since we traveled to assist small business people in Guam, Rota, Saipan, Pohnpei, and American Samoa on behalf of ADAP. Over the past month, we have worked at contacting the people that we worked with on a one-on-one basis to see if there was a measurable impact on their businesses. We also conducted seminars in Saipan, Guam, American Samoa, and Pohnpei. However, we did not attempt to contact people who only attended seminars due to the inherent difficulty of asking people to attribute impacts to the more general information that is typically presented in a seminar. We therefore focused our efforts on those individuals and companies that we were able to offer specific advice to in the one-on-one sessions. We developed a survey based on the one used by the National Institute of Standards and Technology's Manufacturing Extension Partnership (NIST-MEP) Program. This survey is designed to capture and measure desired impacts such as revenue & profit improvement, job creation & retention, capital investment and overall satisfaction with the services received. Although very few of the people that we conducted one-on-one meetings with contacted us for follow-up assistance, we were pleased to discover that many of the people we recently spoke with are doing well and are truly appreciative of the assistance we were able to offer. The surveys and interviews we were able to complete indicate good, quantifiable impacts in several key areas of business health.

All four of the one-on-one parties in American Samoa were contacted by telephone to discuss the impact of the initial meeting. Three surveys were completed and one individual declined to answer the survey but indicated that additional assistance of this type would be appreciated. Of those surveyed, we found that 100% reported that advice resulted in taking action; 66% reported an improved market knowledge/understanding; 100% reported and improved profit margin; 100% reported an increased cash flow; and 66% reported increased sales.

Ernest Wusstig (Guam) says that he appreciated our time with him but he did not implement any of the advice that he was so excited about at the time of our meeting. His overall survey answers would indicate that he did not gain much from our service but admits that it is because he did not take advantage of our time well. He wishes that he could meet us again and indicated that he was "satisfied" with the advice that he was given. We spent most of our phone call time discussing his current corn farming operation and issues facing him at this time.

Frank Cruz (Guam) was trying to close down a frozen taro business because he thought that he was losing money. We were able to demonstrate to him that he was actually doing quite well and at the time of our meeting he seemed genuinely pleased with our advice. We were unable to contact him for survey.

San Nicolas Family (Guam) – We met with the entire family and discussed all facets of their operations. We were unable to reach any of the family members at any of their phone numbers.

Felix Quon (Guam) is a coconut farmer. We were unable to contact him for survey.

Herman Semes (Pohnpei) – We met with Herman not in a mentoring capacity but (at his request) to help him export banana into North America. At the time of our first report on this trip we had been unable to reach him regarding several contacts that we made for him in the baby food and fruit juice industry. However, we have since been in contact with him and continue to explore opportunities for him. He needs the capacity to make banana puree before the juice companies will consider his product.

Dr. Lois Engleberger (Pohnpei) – We met with Lois about possible markets for the Karat Banana in North America and Asia. We have remained in contact with Lois regarding progress on Karat production and we have identified several potential buyers for a dry powder or puree in North America and Japan.

Distance Education Opportunities Project / Cari-Pac Update

Also named Asian Association of Agricultural Colleges and Universities (AAACU) Project

Funded from excess Articulation Project funding

Coordination Team: Dr. Lee Yudin, Annie Santos (University of Guam), and Regional Coordinators

Funding Allocations and Expenses:

	Budget	Actual Expenses
Year 16	\$0	\$23,548
Total	\$0	\$23,548

PROBLEM STATEMENT AND POTENTIAL SOLUTION

Distance Education is a powerful tool in providing learning opportunities for individuals living in distant or isolated communities. This project is designed to begin development of a distance learning model for providing learning opportunities to Pacific Island people.

The University of Guam spearheaded efforts to develop a distance education program. Equipment was purchased to mediate courses and generate instructional materials. The equipment consists of a full shooting unit with lights for location shooting such as classrooms or in the field; it has a separate digital audio recording capacity for easy reformatting to other media; and it has a Final Cut Studio editor that gives added capacity for adding other visual material and other audio with shot material or building compilations of still image or laying multiple audio tracks with picture. The equipment package includes studio mikes and mixer for higher quality voice recordings that can be used with radio or audio tapes or edited in with picture. The Final Cut Studio also bundles audio editing software. The equipment base now provides for recording on both mediation in video and audio of the instruction of course lectures, demonstrations, or specific tasks for learning the operations or procedures with equipment and labs. The recordings can be both of the classroom or in the field; they can then be edited and condensed or new material can be added to them such as still photos, illustrations and graphics. After recording and editing, the content can be reformatted as audio tapes, video tapes, CDs & DVDs or converted to computer files or used with a videoconference extended classroom as a multimedia extension. The edited and reformatted material can be linked or attached to web pages and online courses. It can also be "bicycled" as distributed material with multiple copies for individual student use as the tapes or CD's. These material can also be distributed via cable channels and broadcast channels depending on the local systems.

Using the equipment, general course content can be individualized or modulated for self pacing. Because the material will be generated in digital formats it will be more compatible with computer and internet use. Also, by producing this material tropical content, Island/atoll content or specific local needs can be used that may not be included in general course materials from the states.

Some of the course areas that may lend themselves to easy adaptation and mediation at UOG for use at other institutions in the Pacific are: Scientific Principles of Food Preparation, Nutrition and Health, Human Nutrition for Health Professionals, Insect World, Consumer Economics, Plant Pathology, Principles of Animal Sciences, Principles of Soil Science, Lab techniques and Math & English Fundamentals

During the course of this project, Lucyann Kerry, Extension Agent with CES, was charged with overseeing the development of a distance education program at UOG. A pilot DVD was

produced for the Introduction to Agriculture course and work began on production of the telecourse or videotaped course of AG101.

DISTANCE EDUCATION OPPORTUNITIES PROJECT / CARI-PAC UPDATE

The Resident Instruction Grant that includes the institutions forming the CariPac Consortium was just granted its second year of funding. Ms. Lucyann Kerry, an Extension faculty, is continues to oversee the development of distance education courses.

Articulation Efforts Between the Five Pacific Land Grant Institutions

Coordination Team: ADAP Project Manager and Regional Coordinators
 Funding Allocations and Expenses:

	Budget	Actual Expenses
Year 15	\$0	\$19,286
Year 16	\$30,000	\$1,320
Total	\$30,000	\$20,606

PROBLEM STATEMENT AND POTENTIAL SOLUTION

The 2002-2006 ADAP Strategic Plan notes that increased articulation between the Pacific Land Grants is a desirable activity as it could lead to a more educated agricultural workforce in each ADAP country. To that end, here is a brief overview of current articulation agreements between the 5 Land Grants.

<u>School accepts classes or credits from</u>	
American Samoa Community College
College of Micronesia – FSM campus
College of the Marshall Islands
Palau Community College (PCC)
Northern Marianas College
University of Guam	PCC, CMI, COM-FSM, NMC
University of Hawaii - Manoa	ASCC, COM, NMC, PCC, UOG
University of Hawaii - Hilo	CMI

These agreements would most likely be at the administrative level of the university or college, rather than just within the Land Grant or agriculture portion of the college. Overall, there are no entire programs that are directly transferable, rather individual courses would transfer, with or without credit.

At the January 2003 ADAP Board of Directors meeting, the Directors decided to pursue this new “Articulation” initiative and developed a plan. Each institutions’ designated cooperator [from COM (FSM, CMI, PCC), UOG, Guam Community College (GCC), UH, UH-Hilo, NMC, ASCC] will work as part of a team that will construct a needs assessment tool for undergraduate/graduate program needs in Agricultural & Allied areas (FCS, Life Science, Nutrition) in their respective countries. The assessment will target potential students first then move on to businesses in the community that hire students. The results of the meeting are to be presented at the August 2003 Pacific Post-Secondary Education Council (PPEC) Meeting. A pre-report due is at the July 2003 ADAP Directors Meeting. From there, the directors will decide the final course of this project. It is envisioned that with the information from the needs assessment, the working group will get together to begin formulating ideas for new course offerings, or changing existing courses, to allow for better articulation between the Pacific Land Grants.

FINAL UPDATE FROM UOG WEBSITE (JUNE 2005)

New Interdisciplinary Arts & Sciences Degree Program

June 10, 2005

MEDIA RELEASE

NEW INTERDISCIPLINARY ARTS & SCIENCES BACCALAUREATE DEGREE PROGRAM AT UOG

The UOG Board of Regents last night unanimously approved a new Interdisciplinary Arts and Sciences Bachelor's Degree Program at the University of Guam. The new program will be offered for the first time in fall semester 2005.

The new program is the University's response to the Pohnpei Accord, in which all regional community colleges and the University of Guam agreed on the need for a new UOG Liberal/General/Global Studies degree program, designed to accommodate students with varied amounts of previous coursework. Residents of Guam who "stopped out" of college will find the new program an attractive way to return for completion of their degrees. It also provides an option for active-duty military and dependents who have some credits and wish to complete a degree program during their tour of duty on Guam.

The program begins with a "gateway" course that orients students to the principles of interdisciplinary studies and helps the student plan their programs, and concludes with a "capstone" course that offers an exciting integrating experience. Students may choose from four thematic strands within the program: 1) Global Studies; 2) Culture, Literature and the Arts; 3) Society, Ethics, and Human Behavior; and 4) Science, Technology, and the Environment.

The administration and faculty of the College of Liberal Arts and Social Sciences worked collaboratively during the last two academic years to craft an academically effective liberal studies program to meet the needs of local and regional community college students and graduates who desire to continue their education.

"This new degree program positions the University to better meet the needs of students on Guam and throughout the region who have obtained their associate degrees or credits toward those degrees and wish to apply those credits to a bachelor's degree program," said Senior Vice President Dr. Helen Whippy. "This is a new and exciting option for many community college graduates and students who want to earn a bachelor's degree."

For more information on the Interdisciplinary Arts and Sciences Degree program call the College of Liberal Arts and Social Sciences Dean's Office at 735-2850/51/52 or email iasprog@guam.uog.edu.

Trials of Banana Resistant to Black Leaf Streak and Other Diseases in Micronesia

Principal Investigator: Scot Nelson (UH)
 Co-PI: Flordeliza Javier (COM)
 Cooperators: John Hu (UH), Secretariat of the Pacific Community (SPC), Yasuo Yamada (COM-FSM), Adelino Lorens (Pohnpei-DOA)
 Coordination Team: ADAP Project Manager and Regional Coordinators
 Funding Allocations and Expenses:

	Budget	Actual Expenses
Year 11	\$20,954	\$21,028
Year 12	\$15,260	\$15,260
Year 13	\$0	\$0
Year 14	\$0	\$9,990
Total	\$36,214	\$46,278

PROBLEM STATEMENT/POTENTIAL SOLUTION

The project is intended to resolve the problems of high expense (production) and negative effects (humans, environment) caused by of frequent and heavy use chemical fungicides for control of banana black leaf streak.

One solution to this problem is the cultivation of disease-resistant banana hybrids. Several hybrids (supplied by INIBAP, the International Network for the Improvement of Banana and Plantain) are available to us in tissue culture form. After propagation of young plants from the tissue culture material, hybrids will be evaluated for resistance to black leaf streak and their agronomic performance in a set of field trials at two locations on the Micronesian island of Pohnpei, along with several locally-derived, putatively disease-resistant or -tolerant varieties. Susceptible bananas will be included as controls, and to provide sufficient inoculum for dispersal of the fungal pathogen to resistant plants.

The goals of this project are to evaluate disease-resistant banana germplasm for performance in Pohnpei and to provide recommendations for IPM-based cultivation of disease-resistant bananas and their use. Three primary goals of this project: To acquire 10 disease-resistant banana entries or propagating material and produce plantlets for field trials. To evaluate 10 black leaf streak-resistant banana entries for disease resistance and agronomic performance in Pohnpei. To evaluate and disseminate the results of the experiment, with recommendations

FINAL UPDATE (DATE)

- Field trials concluded in 2003.
- Two lectures on "Banana IPM" were presented by Dr. Scot Nelson in Pohnpei and Kosrae in July, 2001.

Portable Extension Office for Program Literature Exchange (PEOPLE)

Principal Investigator: L. Robert Barber (University of Guam)
 Co-Principal Investigator: Craig Smith (Northern Marianas College)
 Cooperators: Jim McConnell (University of Guam), Scott Campbell (University of Hawai'i), Aufa'i Areta (American Samoa Community College), Jackson Phillip (College of Micronesia-FSM)

Funding Allocations and Expenses:

	Budget	Actual Expenses
Year 13	\$14,600	\$9,436
Total	\$14,600	\$9,436

PROBLEM STATEMENT/POTENTIAL SOLUTION

In the last few years several different regional ADAP and Sustainable Agriculture forums have identified the need for relevant (to tropical islands) subject matter publications as a high priority issue in regional agriculture and extension programs. Our island Land Grant Institutes are small when compared to their mainland counterparts, remote and isolated from low cost communications. One result of their small size is that there are fewer subject matter specialists so extension faculty must wear many hats in order to meet the information needs of their clients. Client information needs in the region are just as diverse as on the mainland. An unfortunate result is that our Extension offices have a very limited variety and number of publications due to the unavailability of a diverse selection of publications (booklets, fact sheets or leaflets) to draw on. This problem is compounded by the large number of publications in the region that are now out of print and unavailable for updating and printing.

The impact should be strong since this CD contains many out-of-print publications as well as allowing selective and easily retrievable publications to be printed on-demand. It will also allow users in the Pacific islands to modify publications with their own language for distribution if they have the appropriate Adobe Acrobat software.

FINAL UPDATE

The PEOPLE CD contains hundreds of articles from University of Guam, Northern Marianas College, and University of Hawaii cooperative extension materials, out-of-print publications, California Rare Fruit Growers Incorporated publications, Pest Alerts from the Secretariat of the Pacific Community in Fiji, and ADAP publications, US Trust Territory publications.

The initial CD was sent out to all the participating islands, as well as hundreds of CDs to other individuals and institutions. Based on the feedback we received from those recipients, we continued to work on the CD, improving the navigation and increasing the content substantially. We have just completed a third iteration that will be sent out next week to the participating islands and other institutions and will be available to all interested parties.

The information contained on the CD is also available on the internet at <http://www.uog.edu/cals/people>

POSSIBLE FUTURE PLANS FOR PEOPLE PROJECT

- Make the database searchable
- Expand and update database to include extension materials from Alaska

Better Crops in the Pacific Islands

Principal Investigator: Jack Tenorio (NMC)
 Larry Hirata (ASCC)
 Flodeliza Javier (COM)

Coordination Team: ADAP Project Manager and Regional Coordinators

Funding Allocations and Expenses:

	Budget	Actual Expenses
Year 16	\$0	(\$8,907)
Total	\$0	(\$8,907)

PROBLEM STATEMENT AND POTENTIAL SOLUTION

Many people in the Pacific Insular areas have stopped raising vegetables because it has become too difficult for vegetable farming to remain a viable occupation. Because of pests and diseases, multiple harvest crops such as beans, cucumbers, bitter melon, and tomatoes grow for a few months before prematurely succumbing to disease and dying. The situation is not as bad for crops where harvesting is able to begin early, such as cucumbers and bitter melon in American Samoa. However, other crops are not able to begin a harvest before the plants begin to die, such as beans and tomatoes in American Samoa. Premature crop failure has kept many Pacific Islanders from continuing to grow vegetables. Sources of locally available seeds are usually retail packets from the major seed companies with older versions of non-hybrid varieties bred for cold regions. These low-cost seeds usually do not perform well in the tropics. Consequently, to keep a supply of fresh vegetables, wholesalers and retail stores usually import their own supplies because the local producers are not reliable in quality and quantity. As a result, a larger share of the family food dollar goes to pay for the imported vegetables. More locally-grown vegetables are needed to help decrease the rise of diet-related diseases in the Pacific Islands, such as diabetes, obesity and gout.

Our Project intends to identify better varieties of local favorite commodities than currently available in the areas served by American Samoa Community College (ASCC), the College of Micronesia (COM) and the Northern Marianas College (NMC). Focus will be on nutrient-dense vegetables that produce greater yields under current conditions of disease, pests, rainfall, humidity and temperature. Once concluded, information on the better performing varieties and better farming practices will be distributed to local communities. To increase the likelihood that these better quality seeds will be available within the communities, testing results will be made available to international seed companies. Elsewhere in the world, successful commercial growers have adopted hybrid vegetable seed because of greater yields, adaptation to local growing conditions, and multiple-disease resistance. Worldwide, the most successful vegetable growers use hybrids. For the past 10 - 20 years, Asian seed companies such as Takii and Sakata seed companies in Japan, Known-You Seed Company in Taiwan, China Tai Seed Company in Thailand, and organizations such as the Asian Vegetable Research and Development Center (AVRDC) in Taiwan, have done remarkable work in developing vegetable seed hybrids for the hot, humid wet tropics. Tropical areas have a 12-month growing season for both the crop, and the attacking pests and diseases. Many retail US seed companies appear to be content with their market share of selling non-hybrid varieties that were adapted to temperate countries decades ago. To serve the immigrant market, some US seed companies are now reselling hybrids developed and grown by Asian companies for tropical climates.

REPORT OF FINDINGS

American Samoa Community College:

Seeds of tomatoes, bell peppers, won bok and spinach have been received. Two trials have already taken place - those of 6 varieties of won bok and 5 bell pepper. A taste test was conducted for the 6 varieties of won bok. In the bell pepper trial all 5 varieties died. Since that first trial, 4 additional bacterial wilt resistant varieties have been received and a test will occur sometime early in 2007 as will the tomato trials.

This year has been an unusually rainy one and having one week of no rain has been few and far in between. One week of dry weather is need for the field to dry enough so that the field can be prepared.

Ten varieties of bacterial wilt resistant tomatoes have been received. This trial will be split in two – one for the determinate and the other for the in determinant varieties because secure land available for testing is limited and cannot accommodate a single ten variety tomato trial.

Testing for seasonality will also be conducted for these vegetable varieties.

There have yet to be impacts as at this point, as we are hesitant to recommend any of the won bok varieties to the local department of agriculture and the only business that sells vegetable seeds. However, won bok has been sold to the school lunch program as an alternative to pak choy.

College of Micronesia:

No results to report.

Northern Marianas College

Due to the delay in receiving the seed orders and several problems encountered with the As Perdido Experiment Station research field, the project has been delayed and will commence beginning the dry season. The trials conducted in Rota for sweet corn and tomato. The outcome of the trials produced 7 varieties of corn. The production is the now is the process of analysis based on the number of yield, market ability and taste preference. Out of the 7 varieties, farmers chose preference on the *Jubilee* variety. The farmers were grateful for having the opportunity to participate and collaborate with the Better Crops project and were able to learn various management production of corn. The tomato trials are ongoing and currently being monitored.

Campus Reports

American Samoa Community College Campus Report

What were the changes within your institution or island nation that would influence the operations of the ADAP project? Please describe items such as new state legislation, significant staff changes, institutional reorganization, natural disaster, new agricultural initiatives, development of new agribusinesses, emergence of agricultural diseases, and new challenges or goals at your institution.

American Samoa's Congressman, Faleomavaega Eni Hunkin was re-elected during last November's congressional election. Congressman, Faleomavaega is on his 10th term (20 years) in the seat at the United States Congress.

American Samoa is currently finalizing its final reports of the findings for the Future Political Status of American Samoa. The final report will be due soon for the Governor's review and final approval. Tapaáú Dr. Daniel Mageo Aga is the Assistant Executive Director of the American Samoa Political Status Commission and major contributor and composer of the final report.

College of Micronesia Campus Report

What were the changes within your institution or island nation that would influence the operations of the ADAP project? Please describe items such as new state legislation, significant staff changes, institutional reorganization, natural disaster, new agricultural initiatives, development of new agribusinesses, emergence of agricultural diseases, and new challenges or goals at your institution.

Of course the Continuing Resolution imposed by the US Congress will have great impact on our operations. One other challenge is the Joint Economic Management Committee's and the Interior Department's strict requirements for the use of COMPACT funds will adversely affect our local matching funds.

Northern Marianas College Campus Report

Prepared by: Ross S. Manglona, Director, NMC-CREES

In early 2006, Northern Marianas College suffered budgetary reductions as a result of a decrease in tourist arrivals and the anticipated closure of the CNMI's garment industry. Initially, the college received a 19% decrease in its annual personnel appropriations. Eventually this plummeted further by an additional 10% for the present fiscal year. The steady slump in funds has forced the college to seriously scrutinize its present organizational practices. Areas of concern included the need to freeze present hiring with the exception of critical instructional positions, the evaluation of current academic offerings, and sacrificing areas within the college's operations.

Besides tackling the aforementioned financial constraints, high impacting events took place this fiscal year to include:

- NMC President Antonio Guerrero retired on August 25th, leaving the position vacant till the anticipated selection of his successor following the holiday season.
- As a result of the decrease in state appropriations, the college increased its tuition rates by 40%.
- The college was recently visited by the Western Association of Schools and Colleges (WASC) in October shortly after its submission of the 2006 Self Study Accreditation Report in July.

Although the college is currently in a complex situation, it has been able to overcome those challenges through the input of students, faculty and staff. Excitingly new developments within the college are underway to include:

- The Information and Learning Technology department (ILT) was recently awarded \$900,000 to connect the instructional sites on Rota and Tinian with the main campus on Saipan through microwave technology. The grant was applied through the Administration for Native Americans (ANA).
- NMC is currently applying for a \$250,000 loan for facilities upgrade. Funds acquired will be used to provide five additional classrooms and provide enhancement to our video conferencing capabilities.
- The college has set its goals through the recent publication of its Institutional 5 year Strategic Plan.

In relation to other land grant institutions, NMC-CREES is small in size, with fewer than twenty-five employees distributed amongst the three major islands, Saipan, Tinian, and Rota. To resolve the shortage of manpower, NMC-CREES relies on the key collaborations and partnerships with government agencies, non-profit organizations and other entities throughout the CNMI and the region. Our interactions with collaboration enables us to promote our educational programs, extension services and research projects, In response, NMC-CREES provides collaborators with the knowledge and expertise to aid their respective organizations or agencies. The following is a list of issues and solutions that CREES has had to administer over this fiscal year:

- As of August, CREES is now with a permanent Director and is currently working at filling needed positions. During the Director's short stint we have advertised two additional positions these being a Community Resource Development Coordinator and Food Scientist.
- CREES has been successful in acquiring competitive grants in topic areas ranging from environmental solutions, nutrition education, livestock production, and technology implementation. The acquisition of grants from outside sources totals over \$200,000. Aside from acquiring such grants, CREES maintains previous funding of \$30,000 from the CNMI legislature to address the betel nut bud rot and the infestation of rodents on Saipan farmlands.
- With the funding that CariPac has awarded, NMC was able to cover the cost of additional instructors to teach NRM core courses during Summer 2006 and Fall 2007. The impact that this program has made can be seen in the upcoming Spring 2007 graduation where NRM is scheduled to have its first 3 students graduate under the program.

University of Guam Campus Report

What were the changes within your institution or island nation that would influence the operations of the ADAP project? Please describe items such as new state legislation, significant staff changes, institutional reorganization, natural disaster, new agricultural initiatives, development of new agribusinesses, emergence of agricultural diseases, and new challenges or goals at your institution.

If additional funds become available from Year 17, Year 18, or Year 19 budgets, what are some ideas of ways we can spend it and benefit the project?

1. Dr. Manny Duguies, UOG, wants to submit an animal husbandry project (see handout)
2. \$20,000 per institution to work on 1 research project that will benefit local agricultural production

University of Hawaii Campus Report

What were the changes within your institution or island nation that would influence the operations of the ADAP project? Please describe items such as new state legislation, significant staff changes, institutional reorganization, natural disaster, new agricultural initiatives, development of new agribusinesses, emergence of agricultural diseases, and new challenges or goals at your institution.

- For the fifth consecutive year, CTAHR's enrollment has increased. Fall 2006 enrollment was 800, with 585 undergraduates and 215 graduate students.
- CTAHR's 2007–2009 Biennium Budget request is \$2,862,900. Of this total, \$1,750,000 supports 14 new faculty positions to further the renewal of our faculty, which suffered significant losses as a result of retirements and budget cuts during the latter half of the 1990s. An additional \$1,112,900 funds CTAHR's portion of a package of incentives related to Important Agricultural Lands legislation. CTAHR's capital improvement request is \$11,400,000 for two projects. The faculty renewal request is for programs in: developing sustainable food and energy systems, combating invasive species, promoting healthy and resilient families and communities, and supporting the growth of Hawai'i's aquaculture.
- This year CTAHR will celebrate its centennial. We are planning a Homecoming and Awards Banquet, open houses, centennial book and other events to commemorate the event.