

Annual Report of Accomplishments and Results for the Agriculture Research, Extension and Education Reform Act (AREERA) for FY 2006

UNIVERSITY OF GUAM COOPERATIVE
EXTENSION SERVICE

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I. Planned Programs

Executive Summary

The University of Guam Cooperative Extension Service (UOG-CES) continues to engage the University and Community through a multi-disciplinary approach to address the complex issues facing the People of Guam; we continue to remain the institutional leader in making the University of Guam and its Land Grant mission relevant.

Our efforts continue to be stakeholder driven keeping us relevant with the issues that affect our island community and the region. In a recent Western Association of Schools and Colleges (WASC) on-site visit in January 2006, two meetings were held with WASC representatives and members of our community stakeholders, over forty people attended ranging from government leaders, farmers, and NGO leaders. The response was overwhelming. Stakeholders articulated the relevance of CES to the community and called for continued support of our programs. In its exit report, WASC recognized and commended UOG-CES for its productive work in the community and called for the University to model our successes.

One of our strength is our ability to collaborate and partner with government and private entities to address the issues and needs of our residents. These partnerships allow CES to leverage limited resources to optimize available professional expertise. Our multi-state activities in the Pacific Region allow professionals and partners to share information and knowledge that is relevant and to provide solutions affecting individuals, families, communities and environment. Trends for this reporting include new collection of data projects, new agricultural techniques and methods, developing a youth pipeline to apprenticeship programs, higher education and direct employment, and to promote healthy lifestyles and living on Guam.

Some of the key themes under National Goals 1 and 4 include capacity development for the aquaculture industry, small farm viability, developing agriculture's next generation, and soil and water conservation. These themes underscore our efforts to support agriculture and the environment by educating stakeholders on agriculture best practices, improve production capacity, and finding funding streams and incentive programs that support farmer endeavors.

Guam Department of Public Health vital statistics reports continue to show increases in the number of chronic related diseases on Guam spurring an urgent response from government and community leaders. Recently, top-level local government leaders secured a commitment from the U.S. Department of Health and Human Services to increase federal resources for disease prevention and minority health care on Guam. Subsequently, an executive order was signed to begin a local "Healthy Living Initiative" to launch a collaborative effort between public, private and non-profit entities to combat the rise in these diseases. This is significant because the ability to partner and leverage resources to maximize our effort in health and nutrition education will be expanded. The Governor's Office has asked UOG-CES to participate as a resource entity for the initiative. Activities under National Goal 3 sustain our efforts to strengthen our family and nutrition education programs this year and in previous years continue to be timely and relevant.

Under National Goal 5, request for increase capacity for data collection and analysis to government agencies are put forth so that there is an appropriate and responsive policy for planning and development. An important concern facing the island is the development, supply and readiness of a Guam workforce to mitigate the need for foreign workers. The Guam Contractors Association has estimated that approximately 20,000 workers will be needed by 2012. This reporting year highlights two significant projects that contribute to assessing Guam's workforce system and employability skills of Guam's youth.

The high rate of military deployment of Guam Army Reserve and Guam National Guard has had a tremendous impact of family members. Spouses often struggle with the demands of single parenting and the stress of maintaining the home front while simultaneously being a supportive spouse to their deployed family member. For children, extended separation from a parent oftentimes requires significant adjustment. In particular, children become vulnerable and considered at-risk due to the displayed emotional and psychological stress. Thus, this generates a need for youth programs to strengthen and enhance youth life skills to cope with the stress in their lives. The 4-H and Youth programs include expanded work with the U.S. Military families that help youth create fellowships with peers who share similar stresses related to the deployment of their parents

The projected population growth associated with the U.S. military expansion in Guam continues to influence our program activities and plans. Population increases associated with this move is projected to swell beyond recent projections of 180,692 by 2010. Indeed, the increase will be unlike anything Guam has seen in modern times. Today, Guam's population is 154,805 (Guam's 2000 Census) with residents in 19 villages. Over 40% of the population is under 20 years old, 22% of the population lives in poverty, and is ethnically composed of 37% Chamorro, 27% Filipino, 7% Caucasian and 29% others. Guam's poverty level is at 24% and with government of Guam's precarious financial status the poverty level is projected to increase.

There are many challenges facing the region and Guam, the University of Guam Cooperative Extension has a responsibility to respond to identified and emerging community needs and issues, empowering individuals, families and communities to improve the quality of life. UOG-CES engages and prioritizes its plans of work and program activities as we meet these ever demanding challenges in the future and continue to assess the outcomes and results of our programs so that we can better manage our limited resources and strengthen old and create new partnerships.

II. Report of Accomplishments

National Goal 1: An agricultural system that is highly competitive in the global economy

Executive Summary

Guam's agricultural community faces an array of situations and risks imposed to the island's environment from highly competitive and often short sighted farm practices. Environmental risks to water quality, soil erosion, pest control, plant and animal diseases, invasive species, infrastructure, urban development, and others affect both the agricultural community and community at large. Our activities under this goal have focused on improving tilapia production, developing farm enterprise viability through containerized egg production and local feed sourcing, farming with inexpensive sound environmental practices, and proper application and use of pesticides.

The need to explore and establish practices beyond the traditional farm are important to keep the agriculture community competitive while maintaining environmental integrity. Through partnerships with local and federal agencies a needs assessment was conducted on agricultural and natural resources industries that identified low cost conservation practices and small scale entrepreneurial agricultural production. As a result of the assessment several projects have been implemented and are discussed under the key theme: Developing Agriculture's Next Generation.

Key Theme: Capacity Development for the Aquaculture Industry

Highlight (1) Aquaculture Production

a. Brief Description

Through a 2 year project funded by the Center for Tropical and Subtropical Aquaculture an evaluation of five varieties of tilapia were made; two were selected and recommended for adoption by the Guam Aquaculture Development and Training Center (Fadian Hatchery) to satisfy the need of Guam's tilapia producers. Twelve people (5 farmers and 7 extension professionals) were trained in aquaculture practices in Thailand. Another seven people (2 extension professionals and 5 farmers/mayors office staff) were trained in Guam in an 80 hour course on tilapia hatchery management.

b. Impact/Accomplishment

The Guam Aquaculture Development and Training Center has adopted two varieties of tilapia to be distributed and expanded for commercial production by the producers. Nineteen participants have increased knowledge in commercial aquaculture practices and tilapia hatchery management. All participants have used this information to consult with clients and others. Over 50 existing and new farmers in Guam, CNMI and American Samoa received new information on tilapia production. At least 10 farmers have implemented better management practices on their farms. The savings or increased profit realized by these farmers has been estimated at \$2,000 per farmer for a total increase of

\$20,000. A video and training manual will be completed this year and provided to participants. One Guam farmer is implementing a modified tilapia hatchery system that will lead to a savings of nearly \$30,000 annually by not having to import tilapia fry.

- c. Source of Funding: Smith-Lever, CTSA, Regional CSREES Water Quality
- d. Source of Impact: Multi-State

Key Theme: Small Farm Viability

Highlight (1) Sustainability of Small Scale Swine and Poultry Farms on Guam

- a. Brief Description:

The animal industry on Guam is primarily made up of small scale farm operations. Swine farms range from one to 20 sows while poultry units have one hundred layers. This program focuses on a holistic approaches to small scale swine and layer production, by providing animal production and management demonstrations that use cultural and sustainable practices as well as providing hands-on training. A two sow unit and 100 layers are maintained at the facility site where hands-on training is conducted.

- b. Impact / Accomplishments:

One hundred fifty producers have learned innovative practices and solutions in animal production and management. Survey results show 50 producers increased awareness and knowledge of how to replace stocks through locally hatched poultry. Participants gave most attention to the coconut and mini-incubator exhibit as there are increased restrictions on importing poultry. Survey results also show that 30 participants will be able to adopt these practices on their farm and are aware of substitution of materials and resources.

- c. Source of Funding: Smith-Lever
- d. Scope of Impact: Multi-State, Inter-Government

Key Theme: Developing Agriculture's Next Generation

Highlight (1) The New Farmer: The Road Less Traveled:

- a. Brief Description:

This program developed demonstrations and trainings to provide new farmers who have limited resources and adopt best management and environmental practices. A total of 21 participants (5 Guam Department of Agriculture (DoAG) staff, 11 Americorps volunteers, 4 Department of Corrections inmates, and 1 guard) were trained in conservation practices such as measuring the contour, contour ditches, contour filter strips, Nitrogen-fixing hedgerows planted on the contour, mulching, composting and building an A-Frame instrument for marking the contour, chicken tractors, and fruit trees for windbreaks needed to set up new farms. Participants also learned of government programs that provide incentives for the use of these practices.

b. Impact/Accomplishment:

Through this program 4 prison inmates gained knowledge and skills needed to set up farms using inexpensive conservation methods. These participants now have an opportunity to adopt their knowledge by starting new farms, providing a source of income upon their release. DoAG now have five staff that can train the public in these methods and have both a curriculum model and a training site to establish long-term demonstrations on their own.

c. Source of Funding: Smith-Lever, WSARE State Implementation Funds

d. Scope of Impact: Multi-Institutional

Key Theme: Sustainable Agriculture

Highlight (1) Professional Development in Sustainable Agriculture

a. Brief Description:

The local sustainable agriculture Professional Development Program held workshops to promote the Western Region Sustainable Agriculture Research and Education (WSARE's) multiple grant programs. The Guam Department of Agriculture (DoAG), the Chamorro Land Trust Commission (CLTC) and UOG-CES partnered to support and coordinate agricultural industry activities. Eight focus groups were conducted to promote the Farmer Rancher Grant Program as well as identify and prioritize agriculture program activities. Alternative agricultural demonstrations and educational activities such as chicken tractors used as a no-till gardening technique with egg production, backyard aquaculture production and small scale nursery were conducted. Egg production potential for the chicken tractors could yield 12 eggs per day. Potential yield for aquaculture production is 300 lbs. of fish for the first six months.

b. Impact/Accomplishment:

Three hundred twenty-two youth, 12 teachers, 12 staff from local and federal agencies and 2 staff from the local mayor's office participated in educational activities and demonstrations learning new ways to start up small scale entrepreneurial ventures. In addition, DoAG adopted the chicken tractors as weeding tools on their livestock breeding station to house the purebred breeding lines of chickens.

c. Source of Funding: Smith-Lever, Smith-Lever 3(d), WSARE, Guam EPA.

d. Scope of Impact: Multi-State

Key Theme: Soil and Water Conservation**Highlight (1) Sustainable Conservation Innovation and Education for Tropical Islands Farms through Intra-agency Collaboration (SCIENTIFIC):**

a. Brief Description:

The University of Guam Cooperation Extension, in partnership with the Guam Department of Agriculture, Natural Resource Conservation Service, Chamorro Land Trust, and the Northern and Southern Soil and Water Conservation Districts, initiated SCIENTIFIC to pioneer innovative solutions using new conservation practices that are unique to the Island Community. Through this project three island environmental conditions are being addressed: 1) shallow soils over permeable limestone with limited water-holding capacity; 2) point source pollution, from livestock operations, to Guam's single fragile water lens; and, 3) frequent high wind speeds and severe tropical storms.

Innovative approaches to address these issues include the use of lemon grass in vegetative barriers and lemon grass in filter strip plantings (instead of vertiver grass), the use of fruit trees in windbreaks and perimeter barrier plantings. Other associated approaches include contour ditches, contour tillage, Nitrogen-Fixing hedgerows, mulching, living mulches or cover crops, and limited tillage and no till plantings.

b. Impact/Accomplishment:

As a result of this project, 2 local farmers have adopted conservation practices and 1 non-governmental agency, Sanctuary Inc., a home for at-risk youth has adopted practices. In addition, the project is a model to leverage personnel and fiscal and resources among agencies.

c. Source of Funding: Smith-Lever, Smith-Lever 3(d), WSARE, NRCS, Guam Department of Agriculture, Chamorro Land Trust Commission,

d. Scope of Impact: Multi-State.

National Goal 3: A Healthy, Well Nourished Population**Executive Summary**

Guam chronic diseases such as diabetes, cardiovascular disease, and cancer are considered primary causes of the number of deaths. According to most recent data from the Guam Department of Public Health and Social Services, six out of the ten leading causes of death on Guam are preventable by maintaining healthy lifestyle habits, especially in diet and exercise. The Guam EFNEP continues to provide programs and activities that focus on preventive nutrition education and food safety to reduce chronic diseases and incidents of food-borne illness. Our program continues to play an important role in helping youth and families make wiser lifestyle choices for healthier eating habits and staying fit in relation to diet and exercise.

Every year the Guam Public Health Department reports about 50 outbreaks and 150 cases of food-borne diseases. Sixty percent of food-borne illnesses on Guam occurred in private homes. The frequency of food-borne illnesses on Guam is much higher than in the United States mainland. The tropical climate and variety of ethnic foods enhance the risk of food-borne

illness. Lack of food safety knowledge and poor food handling practices are reasons for the high rate of food-borne diseases on Guam. Activities this reporting year focused on conducting research and providing food safety education to Guam communities to reduce the risk of food-borne illness on Guam.

Key Theme: Human Nutrition and Human Health

Highlight (1) EFNEP Programming

a. Brief Description:

Seventy adult EFNEP client families participated in the adult nutrition education workshops. Seventy percent of participants successfully completed the program and were awarded a certificate of completion. Among the clients who completed, 49 clients participated in 5 contact sessions totaling 10 hours per client contact, for total of 490 contact hours. Sixty-six percent of the families in the program were in enrolled for one or more food assistance programs. The remaining 34% were referred to seek assistance as needed. EFNEP adult participants were given lessons on basic nutrition, food resource management practices, menu planning, the importance of proper food safety practices, and incorporating physical activity into daily routines.

b. Impact/Accomplishments:

Results from the annual EFNEP summary report of the number of practices improved within clusters of question from the “Behavioral Food Check List” survey given at entry and exit along with 24 hour food recall results are as follows:

Food Resource Management and Nutrition Practices – Eighty-two percent of homemakers at exit showed improvement in one or more food resource management and 91% for nutrition practices which included planning meals ahead of time, comparing food prices, using grocery list for budgeting and organization purposes, and budget food dollars to prevent running out of food before the end of the month.

Post-test results from 24 hour food recalls showed that 41% of clients consumed 2 or more servings of fruits a day at exit as opposed to 57% who consume none at entry. For adult clients, 41% consumed three or more servings of vegetables at exit versus 37% at entry who reported to have consumed none.

Youth Nutrition Education – One thousand seven hundred ninety-eight elementary school-aged children participated in the EFNEP nutrition education lessons ranging from one to five meeting sessions. Six hundred fourteen youth participated in the five session classes with a total of 3,070 contact hours. Pre and post tests results showed an 87% increase in knowledge of the essentials of human nutrition.

One hundred forty volunteers consisting of teachers, aides and school nurses assisted in the youth nutrition education workshops. Volunteers served the EFNEP program by performing educational service roles; support service roles and as a middle manager to ensure continued reinforcement of making healthy food choice.

c. Source of Funding: Smith-Lever, EFNEP Funding

d. Scope of Impact: Territory Specific

Highlight (2) Food Safety

a. Brief Description:

To reduce the risk of food-borne illness, food safety curriculum for youth in 4-H program and school children were developed. Food safety messages were provided to more than 300 adults, children and elderly in food safety workshops and seminars. Food safety educational materials were distributed to more than 200 people in community food safety fairs and displays. "Kelaguen," an ethnic food on Guam, continues to be one of the leading vehicles resulting in food-borne illness. Kelaguen is made from raw or partially cooked meat with lemon juice or powder and often served at ambient temperature at parties and fiestas for many hours. Estimated food-borne illness associated with kelaguen exceeds 1,000 cases per year. Research was conducted to prepare a kelaguen that can be served at ambient temperature without temperature control for safety. The minimum amount of lemon for the kelaguen was recommended to consumers in communities and presented at the 1st Annual Guam Food Safety Education Conference.

b. Impact/Accomplishments:

The pre- and post tests in 4-H food safety workshops showed that the youth's food safety knowledge increased by 20% after education. Presentations of kelaguen research results in regional conferences enhanced consumer's awareness about lack of proper food handling in traditional kelaguen preparation. Due to increase awareness of safe kelaguen preparation and handling, the Guam Department of Public Health and Social Services reported a decrease of food-borne illness associated with kelaguen in 2004 and 2005 compared to 2003.

c. Source of Funding: Smith-Lever, USDA CSREES NIFSI

d. Scope of Impact: Multi-State

National Goal 4: Greater harmony between agriculture and the environment**Executive Summary**

Our efforts this past year have focused on finding and imposing disease and insect control methods for crop and ornamental plants aimed at reducing pesticide inputs to protect our water and land resources. Extension professionals provided technical assistance to approximately 1,728 farmers, homeowners, landscapers, pesticide companies, schools, various government agencies, and non-profit organizations. The Pest Identification and Control Measures provided an array of services to the island community, including creating timely agricultural data systems that support industry and policy areas, such as an insect database for Guam and a weed guide. Efforts to ensure the safety of agricultural workers, farmers and protection of water resources have focused on training for safe pesticide application. The popularity of PSEP has increased over this past year spurred by community concerns over improper pesticide application on fruits and vegetables. Over 1,000 telephone calls and contacts were received during this reporting year.

Key Theme: Integrated Pest Management**Highlight (1) Plant Diagnostic Education Center**

a. Brief Description:

In 2006, the plant diagnostic education center started to take shape with the initial hiring of a full-time diagnostic extension assistant. The objective is to standardize the diagnostic procedures for accuracy, collation, and distribution of information on Guam and the region based on systematic, metabolic, and biochemical testing.

b. Impact/Accomplishment:

One hundred fifty plant and insect inquiries were processed this reporting year. Images of the pests and diseases were submitted to PIDDRS for 4 pathogens and 4 insect pests. In 2006, there were new insect pests that were identified, 5 insect pests and 3 pathogens were identified, respectively. Technical support for 450 site visits were conducted by extension professionals. Based on follow-up surveys of 40 sites, extension professionals successfully resolved 90% of the inquiries. Ninety-five percent of respondents indicated that they would continue to seek the services of UOG-CES.

c. Source of Funding: Smith-Lever (3D)

d. Scope of Impact: Guam and Western Region

Key Theme: Protecting Agricultural Workers, Farmers and Water Resources**Highlight (2) Pesticide Safety Education Program**

a. Brief Description:

Proper and safe pesticide application is important to the safety of agricultural workers, farmers and the water resources of Guam. Extension professionals through the Pesticide Safety Program (PSEP) teach safe application of all pesticides and recommends certification of successful participants to the Guam Environmental Protection Agency. Twenty PSEP trainings were conducted in 5 application categories for a total of 96 training hours, with 145 exams administered to PSEP clients. Three separate trainings were conducted for Guam Department of Public Health and Social Services (Bureau of Community Health Services) WIC farmers. In addition, extension professionals were guest speakers on 5 radio talk show with an estimated 250 radio listeners per show. Topics ranged from the safe use of pesticides to the consequences of misuse.

b. Impact/Accomplishment

As a result of this program, 145 participants completed training in 5 categories of pesticide applicator training; 75% of participants passed the PSEP exams with knowledge and skills of safe pesticide usage. Curriculum that was developed and reported in 2005 was adopted in 2006.

c. Source of Funding: Smith-Lever, Guam EPA, PSEP

d. Scope of Impact: Territory Specific

National Goal 5: Enhanced Economic Opportunity and Quality of Life for Americans**Executive Summary**

Efforts in this goal area continue to increase capacity for data collection and analysis to government agencies for responsive policy development. The creation of a government data work group to establish data policy, data standards and integrated data systems for social and economic planning demonstrates movement by policymakers to institute data requirements across government agencies. An important concern facing the island is the development, supply and readiness of a Guam workforce to mitigate the need for foreign workers. The Guam Contractors Association has estimated that approximately 20,000 workers will be needed by 2012. This reporting year highlights two significant projects that contribute to assessing Guam's workforce system and employability skills of Guam's youth.

The increase in military deployment of Guam Army Reserve and Guam National Guard units has made tremendous impact of family members left behind on Guam due to the emotional and psychological stress. Spouses struggle with the demands of being a single parent during the deployment and the stress of maintaining the home front while simultaneously being a supportive spouse to their deployed family member. For children, extended separation from a parent oftentimes requires significant adjustment and are considered at-risk due to the exhibited emotions and psychological stresses as well. These conditions gave the impetus for youth programs to strengthen and enhance youth life skills to cope with the stress in their lives.

Key Theme: Community Development**Highlight (1) Socio-Economic Data Information for Community Resource Development****a. Brief Description**

From January to September 2006, the Current Labor Force Survey (CLFS) assessed the economic and labor force conditions of the island. A survey of 1,800 households assembled data on the number of people underemployed and unemployed on Guam. For this reporting year, 15 enumerators were trained on U.S. Census Bureau Standards in addition to the 25 trained enumerators in 2005, increased the capacity of enumerators to 40. Government agencies and private entities have timely economic data to plan and direct economic development.

Through a partnership with the Guam Department of Public Health, a "Program for the Uninsured Project" initiated in 2005, assessed the characteristics of insured and uninsured people in relation to minority groups, ethnicity, demographics and socio-economic status of the number of uninsured people on Guam. The project concluded this reporting year with a final report submitted to the Guam Department of Public Health for transmittal to local government policymakers and U.S. Department of Public Health and Human Services.

b. Impact/Accomplishment

As a result of this and previous data projects, the GDOL and economic entities continue to have timely economic unemployment data and have adopted a protocol for examining

workforce conditions and trends for policy and economic development. The adoption of the protocol has resulted in GDOL being the first jurisdiction in the nation to meet the U.S. Labor requirement of integrating workforce data for policy and programs (U.S. Department Labor). Further, GDOL has now been removed from federal high-risk grant status, increasing grant opportunities for workforce training and educational programs. The GDOL is now a pilot agency for the government of Guam to model successes of policy and economic development.

Through the project for uninsured, Guam policymakers now have policy recommendations to implement for the uninsured population. Recommendations include: 1) Expanding the information base to monitor Guam's economy, health system and the uninsured; 2) Piloting and evaluating a program to improve insurance enrollment particularly targeting non-U.S. citizens, employees of small business firms, and young adults. Evaluate regulatory policies to encourage private participation; and 3) Establish Guam as a "Universal Access to Health Community."

- c. Source of Funding: Smith-Lever, U.S. Department of Interior, Guam Department of Labor, U.S. Department of Public Health and Human Services, Health Resources and Services Administration (HERSA), State Planning Grant (SPG)
- d. Scope of Impact: Multi-State, Multi-Discipline, Multi-Agency

Highlight (2) Assessing Performance of Workforce Systems

- a. Brief Description:

The realignment of the U.S. Military on Guam presents specific opportunities to the island's workforce system development. The National Emergency Grant – Base Realignment and Closure (NEG-BRAC) project through a partnership with the Guam Community College, conducted a performance-based assessment/evaluation of the Guam Department of Labor (GDOL) One-Stop Career Center (OSCC) and the Guam workforce system to determine the Island's readiness for addressing the needs of displaced workers.

Twenty nine personal interviews with OSCC staff, 369 telephone surveys with jobseekers, 260 telephone surveys with employers, and 3 Appreciative Inquiry focus group sessions were conducted this reporting year. Data analysis is on-going and is expected to be completed in June 2007.

- b. Impact/Accomplishment:

GDOL has adopted a framework and evaluation instruments to assess effectiveness, efficiency and performance of the GDOL workforce systems. In 2006, the U.S. Department of Labor, initiated a call for a performance review of the OSCC systems in all jurisdictions. Through this project GDOL has been identified as a "best practice" for assessing workforce systems.

- c. Source of Funding: Smith-Lever, U.S. Department of Labor, NEG-BRAC
- d. Scope of Impact: Territory Specific, Multi-Agency

Highlight (3) Employability Skills Training Pilot for At-Risk and Out of School Youth

a. Brief Description:

The Agency of Human Resources Development (AHRD), the Guam National Guard (GUNG), and UOG-CES partnered to pilot *About Face!* Program employability skills training for Guam's youth. Participants ranging from ages 14 to 18 received academic remediation, job and life skills training. Forty participants completed classroom work, while 30 completed classroom work, work experience and job shadowing (on the job training) portion of the program. Five private companies and two government agencies provided job shadowing in their organizations for on-site work experience. Program modules ranged from topics on competing in the job market, success on the job, to responsibly and citizenship.

b. Impact/Accomplishment:

Forty at-risk youth have increased their knowledge and gained practical skills in computer literacy, business perspectives, community service, interpersonal relationships, job search and job employment basics. Thirty participants have increased their career aspirations and have a better understanding of how their interests and skills connect to their career choice. Public and private agencies now have an employability skills program model to implement.

c. Source of Funding: Smith-Lever, US Department of Labor

d. Scope of Impact: Territory Specific

Key Theme: Youth Development and 4-H**Highlight (1) Military Kids (U.S. Army)**

a. Brief Description:

In collaboration with Guard and Reserve units, 4-H has successfully conducted a total of 18 youth workshops with 213 participants gaining knowledge of basic life skills. Two adult workshops were conducted with a total of 11 participants gaining knowledge about 4-H and photography curriculum. As of 2005 there were 327 4-H club participants with an additional 90 members inducted in 2006, with a total of 417 participants for this reporting year. Two additional Hero Pack activities were conducted focused on Hero Pack distribution to Guard and Reservist personnel returning to Guam from deployment. A total of 31 Hero Packs were distributed.

b. Impact / Accomplishments:

A total of 213 participants increased knowledge of 4-H life skills. The post evaluations revealed that 100% of the participants learned new information about showing respect and consideration for others, having empathy, sensitivity, and friendship skills; 95 % gained understanding of accepting responsibility for one's part of the task; 92 % learned the importance of effective communication skills; 100% learned how to interact effectively with others, and accepting responsibility; 88% learned the importance of conservation of resources available in the environment; 97% learned personal accountability for one's behavior and obligations; 100% learned how to use gained information in real life

situations; 90% learned to make wise use of resources; 92% learned new ways to avoid danger and handle emergencies; 89% percent learned how to provide care and attention to animals.

- c. Source of Funding: Smith-Lever, Kansas State University Operation Military Kids
- d. Scope of Impact: Territory Specific, Multi-Institutional

Highlight (2) 4-H Youth Development Programs Enhance Youth Life-Skills

- a. Brief Description:

4-H Life Skills continues to be one of the major program activity with 148 life skill workshops conducted with 2,394 youth participants. Eighty-two volunteers and collaborators assisted providing 1,950 service hours. There were 5 new 4-H clubs established in 5 schools with 592 new active members and 19 teachers /advisors /volunteers. Approximately 500 parents were also exposed to “What is 4-H.”

- b. Impact/Accomplishments:

Two thousand three hundred ninety-four youth participated in 4-H Life Skill training workshop and 4-H club activities, while 2,120 youth participated in 4-H life skill special interest workshops. Post evaluation showed that participants increased their knowledge and abilities in the following areas: 90% in making healthy life style choices practicing safety and nutrition diet; 91% in team work by accepting responsibility in one’s task and identifying and agreeing on a task; 93% in decision making to generate alternatives and choosing alternative to implement; 96% in self-responsibility through personal accountability without supervision and capability to make moral and rational decision; 96% in leadership ability to plan and assess and work well with people and group; 94% in planning and organizing by considering the total situation and assemble parts into structure.

Two hundred seventy-four 4-H club members in 5 schools participated in several workshops. Post evaluation results showed that participants increased their knowledge and skills as members in the clubs. At one elementary school 97% of club members increased their knowledge in health, plant science, and math through nutrition, horticulture and craft construction workshops;

Workshops in food and nutrition, plant propagation, and basic plant science, seed germination, transplanting, field preparation and transplanting were conducted at three middle schools. 96% of club members increased their knowledge in health, plant science. 98 % increased knowledge in plant science and recommended healthy practices by reducing health risk behavior and 98% increased knowledge in plant science at and use of math skills.

One high school conducted Marine Mania workshops in mangrove protection, reef and beach cleaning, turtle egg-laying, and oceanography. Evaluation results showed 98% reported an increase in knowledge and awareness of the environment, ecology, history, and oceanography. In addition 98% of parents’ surveyed indicated that their child/children applied both life skills and subject matter at home.

- c. Source of Funding: Smith –Lever
- d. Scope of Impact: Territory Specific.

III. Stakeholder Input Process

Results of consideration of Received Stakeholder Input

The University of Guam Cooperative Extension uses multiple approaches to seek stakeholder input. Formal surveys, focus groups, advisory councils and collaboration with groups, agencies, schools, and organizations were employed to ensure stakeholders represented the whole community in terms of diversity, family status, income level, age, gender, disability who are both users and non-users of UOG Extension programs.

This reporting year, UOG-CES was focused on eliciting social and economic issues and challenges faced by community due to projected population and economic increases. UOG-CES participated in three legislative round-table discussions focused on workforce development and systems. Results from the session were used to refine our programs goals and incorporate needs.

Focus and Listening Group Sessions (May 2006): A total of 90 people participated in the sessions. Invitations to traditional stakeholder groups and individuals were delivered and personal contacts were made to each group and individual to encourage participation. Announcements were published over a four day period in the local media. The results of the sessions centered on economic, social, environmental and cultural issues. From this three major themes were identified: 1) managing the environment; 2) educating individuals and families; and 3) strengthening communities

Advisory Group Session (May 2006): Issues gleaned from the surveys and focus group sessions were presented to the advisory group. Advisory group members have been identified as key leaders and heads of boards, councils and commissions and have worked closely with CES in major projects. Using “filters” (i.e. critical needs matrix) the group was asked whether the issues were on track, whether anything important was missing and how the issues should be prioritized.

IV. Program Review Process

Significant Changes in the Program Review Processes:

There have been no significant changes in the program review process for this reporting year. However, the 2007 accomplishment report will address changes in the program review process as contained in the 2007-2011 plan of work.

V. Evaluation of the Success of Multi- and Joint Activities

Did the Planned Programs Address Critical Issues of Strategic Importance?

Collaborations and partnerships with local and regional stakeholders are an integral part of our extension programming activities. Critical issues of strategic importance are demonstrated by our multi-institution activities in the Pacific Region that allowed professionals and partners to share information and knowledge that is relevant and to provide solutions affecting individuals, families, communities, and environment. Our programs are inter-disciplinary, multi-institution and multi-partnership that engage on the identified and critical issues.

Our collaboration with the Chief Executives of Micronesia resulted in the establishment of seven councils: Regional Invasive Species, Regional Renewable Energy, Regional

Tourism Council, Transportation, Regional Health Council, Pacific Workforce Investment Group, and Environment. Continued progress and updates will be reported during the 7th Micronesia Chief Executives Summit in March 2007.

Did the Planned Programs Address the Needs of Under-Served Populations?

Our plans of work and efforts of work do not discriminate in its activities as it works with the population of Guam. Based on the demographics of the Guam's population, Over 22% of the residents' lives in poverty and ethnicity consisting of 37% Chamorro, 27% Filipino, 7% Mainland-Statesider or Caucasian, and 29% others. The island is a melting pot of ethnicity . The activities are brought into the community and awareness are then made to the public through publication and notices of workshops, and meetings in newspapers, newsletters, electronic distribution and other electronic media. Collaborations and partnerships with local and federal government agencies and non-government organizations and entities create a coalition and engagement of partners to address the needs of the population on Guam. Every resident has full accessibility to the program activities of the University of Guam Cooperative Extension. Our stakeholder input process has been thorough in its effort to ensure that it is representative of the community in terms diversity, income level, education background and disability.

Did the Planned Programs Describe the Expected Outcomes and Impacts?

The expected outcomes and impacts are articulated throughout the document.

Did the Planned Programs Result in Improved Program Effectiveness and/or Efficiency?

Yes, through several of the projects models of partnerships that streamline fiscal and program effectiveness can now be replicated. This is evident in increasing requests to conduct a variety of programs and projects from a broad spectrum of the community. Many agencies, non-profit organizations and entities have been hamstrung with governmental bureaucracy and structures that do not support implementing a program in an efficient manner. Because the university has autonomy from these barriers, many of our stakeholders have sought our assistance in devising partnership that provides flexibility to deliver their programs. Our use of advisory bodies provides important and critical feedback on programs and activities, allowing UOG-CES to continually fine tune areas for improvement.

VI. Appendix A. Annual Report FY 2006				
Allocation of Local and Smith-Lever 3c and 3d Funds within the Cooperative Extension Service				
	FTE%	Federal Funds	State Funds	Total
Administration				
Total FTE	6.5	210,733.65	164,250.45	374,984.11
Goal 1				
Total FTE	4	177,892.44	177,892.44	355,784.86
Goal 3				
Total FTE	3	89,276.09	60,968.09	150,244.18
Goal 4				
Total FTE	4	132,865.88	107,921.88	240,787.77
Goal 5				
Total FTE	6	194,414.67	194,414.67	388,829.34
TOTAL	23.5	805,182.73	705,447.53	1,510,630.26

Appendix B : 2006 University of Guam Cooperative Extension Service Civil Rights

Activity	Client Contacts														Total	Total	Total
	Local Indigenous (Pop.)		Chamorro		Filipino		White		Micro		Asian		Black				
GENDER	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	ALL
GPRA Goal 1	56	25	18	17	44	11	9		8	5			18	4	153	62	215
GPRA Goal 3	134	232	33	46	28	38	20	38	16	38	2	3	2	4	235	399	634
GPRA Goal 4	442	518	61	114	76	124	29	14	103	142	11	10	25	59	747	981	1728
GPRA Goal 5	569	520	121	113	121	116	79	59	28	35	7		42	16	967	859	1826
EFNEP	3611	3707	770	1147	292	556	259	310	220	382	86	50	155	221	5392	6370	11762
Pesticide Impact	352	13	89	54	57	19	31		46						565	86	651
IPM	944	525	207	186	264	235	67	40	99	49	20	30	66	53	1675	1118	2793
PAT	910	142	299	162	259	24	269	7	153	12			16	4	1906	351	2257
Sustainable Ag.	680	305	246	162	214	186	79	37	115	35	5	7	40	44	1357	851	2208
Water Quality	174	132	65	20	42	18	44		34	1					394	90	484
TOTAL	7872	6119	1909	2021	1397	1327	886	505	822	699	131	100	364	405	13391	11167	24558
PERCENTAGE TOTALS	32%	25%	8%	8%	6%	5%	4%	2%	3%	3%	1%	0%	1%	2%	55%	45%	100.00%

