2007 American Samoa Community College Combined Research and Extension Plan of Work

Brief Summary about Plan of Work

American Samoa Community College (ASCC) Division of Community and Natural Resources (CNR) is submitting this joint Extension and Research Plan of Work for the period 2007 - 2011. This plan focuses on the Hatch and Smith-Lever projects being implemented because of stakeholder and program inputs. New projects include vegetable gardening to address the growing obesity problem. Because of four deaths due to leptospirosis since 2003 and because of our acceptance in the villages, we will be working with the American Samoa Environmental Protection Agency (ASEPA), the American Samoa Public Health (ASPH) and the American Samoa Department of Agriculture (ASDOA) in a public awareness campaign at the village level. We have been asked to join a local avian influenza task force along with the Territorial Office of Homeland Security (TOHS) to develop strategies for information dissemination. Because of a possible biosecurity threat to our staple foods, taro (Colocasia esculenta) and cooking banana (Musa spp.), work is being conducted to increase their genetic variability as a safeguard.
Recently, the American Samoa Department of Commerce (ASDOC) established an Ocean Resource Management Council, headed by the Lt. Governor, that focuses on stream waste management and control. ASCC-CNR's recent studies of stream water chemistry, flora, fauna, and coliform and E. coli levelshave made ASCC-CNR a leading agency for advising policy makers on watershed resources. The integrity of American Samoa's streams continues to be an important issue with the public and several federal and local government agencies. ASEPA monitors the mouth of several streams and adjacent beaches for coliform, each month notifying the public which beaches have unacceptably high bacterial counts. It is hoped that through our continued work, we will be able to identify the sources of contamination in the streams that are being monitored by ASEPA so that corrective/preventative action can be taken.

The Land and the People

American Samoa is an unincorporated, unorganized Territory of the United States of America. It is the only American soil south of the equator. It is comprised of five mountainous, volcanic islands and two coral atolls in the Pacific Ocean between 11 and 14 degrees South latitude and 168 and 171 degrees West longitude. The main island of Tutuila is approximately 2,300 miles southwest of Hawaii and approximately 1,600 miles northeast of New Zealand. American Samoa lies just east of the International Dateline and is six time zones behind Washington, DC.
The total landmass of the Territory is approximately 76 square miles (48,767 acres) with Tutuila being the largest island of 49 square miles. The three islands of the Manu'a group comprise 22 square miles with Aun'uu Island, and Rose and Swain Atolls being about 1 square mile each. Two-thirds of the five volcanic islands have slopes greater than 30%, which are covered by paleotropical rain forest and surrounded by the fringing coral reef, extending in some areas to 2,000 feet offshore. The climate is hot and humid with over 200 inches of rain annually with temperatures ranging from a high of 94o F in February to a low of 73o F in August. American Samoa is subject to periodic hurricanes. Hurricanes Ofa and Val devastated the territory in 1990 and 1991 with sustained winds of over 120 miles per hour, and Heta struck the Territory in January 2004 causing an estimated $150 million in damage. The winds blew at the rate of 165 to 170 miles per hour, damaged 70% of residents' homes and destroyed approximately 50% of agricultural development and rainforest. A year later, Hurricane Olaf wreaked destruction in the Manua Islands. With gusts of 190 miles per hour, the category 5 storm sent waves 30 – 40 high onto the shores of Ta'u, Ofu and Olosega Islands destroying homes, schools, roads and a large area of agriculture crops.
In the last 35 years, the population grew from 27,159 to 65,500 (estimate for June 2005), and the population density more than doubled from 357 to an estimated 862 people per square mile. According to the 2000 Population Census of American Samoa, the population is 88.2% Samoan with the median age being 21. The average household size was 6.1 people. The per capita income was $4,357 with 5,072 of

the 8,706 families (58.3%) with income below the poverty level.

Agriculture and Natural Resources

According to the 2003 Agriculture Census of American Samoa, there were 7,094 farms that generated $58,196,832 in agricultural commodities. These commodities, either sold on the local market, used for family consumption, or as contributions to faalavelave (cultural events including funeral, births, weddings, and chief title bestowals), were valued at an average of $8,204 per farm. The average farm size declined from 7.1 acres in 1990 to 2.8 acres in 2003. The number of farmers, however, increased during that period from 1,126 to 7,094, in part due to the number of native Samoans returning from the US mainland after retirement to farm their communal lands. As population pressure forces farming up the steep slopes, issues regarding erosion, landslides, flooding, habitat destruction, and watershed loss become more important. Traditional methods of soil conservation and crop sustainability are no longer viable. With less land available for farming, for example, soil is no longer allowed to lay fallow for a few growing seasons to recover lost nutrients.

Human Health and Well-Being

Obesity and overweight, poor nutrition and lack of exercise, food safety issues, filariasis, and leptospirosis are major health problems in American Samoa (AS). In 2003, the World Health Organization in its publication “Diet, Food Supply and Obesity in the Pacific” found that 83.6% of the males and 87.6% of the females in AS had a body mass index greater than 25. In a similar yet to be published study in 2005, Davison et.al. found in a stratified random sample of 380 AS adolescents aged 11 to 18 years old that 32% and 34% were overweight and obese respectively. “These are by far, the highest rate documented for children of any ethnic group, now or in the past.” the authors write in the study conducted in 2005. Moreover, a survey of 424 children between the ages of 1-10 years old in AS conducted in 2003 by a team from the University of Hawaii and Uniformed Services University, Maryland reported that: 11% of the 1-4 years old were too heavy for their height, 30% of the 5-10 year old children were overweight, and 15% were at risk of being overweight. The survey also found that 9% had blood sugar levels higher than recommended and more than 55% had blood cholesterol levels higher than recommended. The diets in AS are high in meats, starches, sugars, and fats and tend to be very low in vegetables, fruits and dairy products

Families, Youth and Communities

Resource management (poverty), parenting, culture, and youth at risk issues are major areas of concern in American Samoa. More than 58.3% of American Samoa’s families are considered poor and below the U.S. poverty level (American Samoa 2000 Census). Additionally, unemployment is about 18%; cost of living is high and more than 50% of average spending goes to food and housing. With per capita income at $4357 (Population Census 2000), people need to manage family resources wisely and take advantage of economic opportunities to maintain and increase their quality of life. Parent and child relationship is a critical issue in American Samoa. Lack of supervision for children and youth due to working or absent parents is a major concern. There is a need to help parents become better parents and for the children to remain respectful of their parents. As American Samoa becomes more westernized, families are forced to reconcile their traditional culture of respect for elders and communal living with the often directly opposite western value of individualism. The Samoan youth are expected to serve their elders with respect and obedience with no back-talk. However, youth who grew up in Hawaii and the mainland United States have difficulties in accommodating their American lifestyles and expectations of parents and other family members. Attitudes toward the Samoan culture or fa’aSamoa are changing and that people are losing their perspective and respect for high moral standards and ethical conduct. Therefore, learning opportunities should be provided to preserve the Samoan culture, language, and family values. According the Population Census 2000 the median age was 21. The American Samoa 2001 Youth Risk Behavior

Survey of 914 high school students in six schools reported: 21% of the students carried a weapon, 37.3% smoked cigarettes, 8.7% drank alcohol, 21.7% used marijuana, 23.4% had sexual intercourse, and 20.9% attempted suicide. Juvenile crime is increasing. High school dropout in 2003 was 3%. Addressing the youth at risk issues will help the youth of American Samoa become productive, self-reliant, and contributing members of the community.

Issues

Because of its geographic isolation and the Territory's limited resources, there are no services making available different line of pigs to prevent inbreeding. Inbreeding in our swine industry is one cause of low production and slower growth rates. Typically, in the US mainland, pig farmers can purchase stud service from others, easily purchase different lines of pigs from other farmers, or purchase frozen semen and artificially inseminate their own stock. In American Samoa, most farmers raise Samoan pigs of a similar breed. Off-island stock was brought in to address this problem just three times in the past 25 years - twice in the form of live animals and once through artificial insemination. These introductions brought genetic variability to our livestock industry. More genetic variability needs to be introduced to prevent further inbreeding. The agriculture extension plan is to revive the pig program. It will offer boar services, sell extension's animals to farmers to reduce their inbreeding, and buy or trade stock with farmers so that inbreeding is reduced. Also frozen semen will be imported for artificial insemination to benefit all.

For the crop industry, cultivars of leaf blight resistant taro and black leaf resistant bananas will be introduced in tissue culture, tested and released to the farming community to increase genetic variability. We want to reestablish the vegetable seed sales to our clients. In the past vegetable variety trials were conducted and the varieties that performed well were recommended to the only business that sells seeds in the Territory. The imported seeds were marked up so high the farmers were unwilling to buy them. The seeds sat on the shelf and did not sell well, so the business stopped importing them. The varieties that performed well in local tests should be available to the farming community. Extension intends to import and sell these seeds directly to the farming community at a reasonable cost. Vegetable trials to identify cultivars that will perform well in our hot, humid and wet tropical environment will continue. For the fruit industry, the priority is to rejuvenate the program's fruit tree orchard by introducing new fruit tree varieties. For the varieties that perform well workshops will be conducted to teach farmers and interested homemakers the different methods of asexual propagation so that each home will have a diverse variety of fruit for the children to enjoy. Then parents will not have to purchase apples and oranges, peaches and pears to feed their children thereby effecting an import replacement scheme for the Territory.

Because of the steep slopes and high rainfall, soil erosion studies along with contour hedgerows and other soil conservation methods will be employed in trials and demonstrations. To date, demonstrations of 5 different species of planting materials have been used in these hedgerows. Vetiver grass (Vetiveria zizanioides), one of the five, shows great promise. Work will continue to create "natural" terraces using contour hedgerows.

Pesticide efficacy tests of reduced risk chemicals will be conducted to complement the IPM strategies for the different economic crops. Because of its geographic isolation and relative small natural resource base, there will be no effort to develop an export industry. Instead, the American Samoa Marketing and Local Producers' directories will be revised to address the local marketing issue.

Monitoring the health of our streams will continue to be a focus. In addition, to stream water chemistry, flora, and fauna, we have added coliform and E. coli monitoring. It is hoped that with the water quality program ASCC-CNR and their partners will be able to assist villagers and landowners in identifying sources of contamination through GIS mapping of piggeries and advise leaders on either relocating point-sources of contamination or mitigating their impact on streams through approved sewage treatment systems. Information on water quality will also be provided to aquaculture farmers utilizing indigenous

species, who use the streams as a source of water for their operations. ASCC-CNR will continue to be strong advocates for promoting watershed stewardship practices, especially among school children, by making the public aware of the rich inheritance of stream animals that sustained their ancestors and that may offer commercial opportunities for present and future generations.
From 2003 to the present, there have been thirteen cases of leptospirosis diagnosed at the LBJ Tropical Medical Center, American Samoa's primary health care facility. Of this number, four have died. After the first death, a study, "Leptospirosis: A Seroprevalence Survey on American Samoa" was undertaken in 2004 by the National Center for Infectious Diseases at Centers for Disease Control. The study found that 17% of the 341 adults surveyed had serologic evidence of prior infection. The prevalent serovars identified were bratislava and icterohaemorrhagiae which are commonly associated with rodents and swine. ASCC CNR has joined forces with ASPH, ASEPA, ASDOA, and USDA NRCS in developing a media campaign focused on what the average person can do to safeguard their families from contracting the disease. Because of our success in bringing programs and information to the villages, TOHS has asked ASCC CNR to join with them in developing an overall avian flu strategy for the Territory.
Families, 4-H and Nutrition (F4HN) professional and paraprofessional staff will use an integrated approach to provide nutrition education program to youth, homemakers, community residents, and other traditional and nontraditional clients. The Agriculture Extension Service staff will continue to emphasize the production of local vegetables in their effort to help F4HN clients begin gardening projects. F4HN staff will conduct workshops, presentations, and demonstrations in the villages, schools, churches, to government agencies, and community groups on developing and testing recipes using locally grown produce. Recipes will be given out to the participants with the rationale that if more fresh vegetables are readily available, more will be used in home meals. More vegetables cooked at home translate to more vegetables eaten and improved health of families. The F4HN personnel will continue to distribute nutrition educational handouts such as the Pacific Food Guide Pyramid, newly published English/Samoan recipe book, calendars, posters, and other nutrition materials to food stamp recipients, students, teachers, homemakers, and other clients. Community awareness programs on the negative impacts of obesity, overweight, poor nutrition, lack of physical activity, and food safety issues will be implemented. Sports, aerobics, and other exercise programs are planned for schools, work place, and village settings as alternative physical activity programs. Furthermore, F4HN staff will conduct food safety workshops and demonstrations about safe food handling, storage and preparation to youth, childcare providers, WIC participants, Food Stamp clients, homemakers, and other clients. Demonstrations will be provided to school age children and adults on the correct way to wash hands to prevent food borne illness. F4HN personnel will continue to partner with local, regional, and national agencies, organizations, and institutions in planning, developing, and implementing programs to address obesity and overweight, poor nutrition and lack of physical activity, and food safety issues for both youth and adults in American Samoa.

These are the priority issues that will be addressed by the Hatch and Smith-Lever Programs in American Samoa 2007 – 2011 Plan of Work.

Estimated number of professional FTEs/SYs to be budgeted for this plan.

Year	Extenion		Research	
	1862	1890	1862	1890
2007	27.3	0.0	15.3	0.0
2008	28.3	0.0	16.3	0.0
2009	28.3	0.0	16.3	0.0
2010	28.3	0.0	16.3	0.0
2011	28.3	0.0	16.3	0.0

Merit Review Process

The merit review process that will be employed during the 5-Year Plan of Work cycle

- Combined External and Internal University External Non-University Panel

Brief explanation

Research and Extension initiatives are client-driven, that is, based upon the latest stakeholder input survey. Owing to our limited number of staff, which serves a population of 65,000, each researcher and Extension agent tries to match his/her knowledge skills and expertise to a high priority client concern that also would meet federal grant requirements.

The proposal is then given to the Research or the Extension Coordinator, who distributes it to knowledgeable professionals both within and outside of the institution. If an off-island expert can also be found who is willing to review the proposal, gratis, this source of review is also sought.

Evaluation of Multis & Joint Activities

1. How will the planned programs address the critical issues of strategic importance, including those identified by the stakeholders?

Not required to report

2. How will the planned programs address the needs of under-served and under-represented populations of the State(s)?

Not required to report

3. How will the planned programs describe the expected outcomes and impacts?

Not required to report

4. How will the planned programs result in improved program effectiveness and/or efficiency?

Not required to report

Stakeholder Input

1. Actions taken to seek stakeholder input that encourages their participation (Check all that apply)

- Use of media to announce public meetings and listening sessions
- Targeted invitation to traditional stakeholder groups
- Targeted invitation to selected individuals from general public
- Survey of traditional stakeholder groups
- Survey of traditional stakeholder individuals

Brief explanation.

Where ever and when our stake holders gather for programs, they will be asked to evaluate and give inputs regarding followup workshops and direction.

2(A). A brief statement of the process that will be used by the recipient institution to identify individuals and groups stakeholders and to collect input from them

1. Method to identify individuals and groups

- Use Advisory Committees
- Use External Focus Groups
- Needs Assessments
- Use Surveys
- Other

Brief explanation.

All workshops conducted by CNR extension will be evaluated for information regarding What next? and Where do we go from here?. Focus groups are being planned for our underserved clients in the Manu'a Islands. All farm visits conducted by CNR Agriculture Service will be documented and will contain sections where farmers will identify their problem areas. This information will be used to direct resources in research. The CNR advisory group's responsibility is to prioritize and bring focus to the stakeholder concerns.

2(B). A brief statement of the process that will be used by the recipient institution to identify individuals and groups stakeholders and to collect input from them

1. Methods for collecting Stakeholder Input

- Meeting with traditional Stakeholder groups
- Meeting with traditional Stakeholder individuals
- Meeting with the general public (open meeting advertised to all)

Brief explanation

All workshops conducted by CNR extension will be evaluated for information regarding What next? and Where do we go from here?. Focus groups are being planned for our underserved clients in the Manu'a Islands. All farm visits conducted by CNR Agriculture Service will be documented and will contain sections where farmers will identify their problem areas. This information will be used to direct resources in research. The CNR advisory group's responsibility is to prioritize and bring focus to the stakeholder concerns.

3. A statement of how the input will be considered

- In the Budget Process
- To Identify Emerging Issues
- Redirect Extension Programs
- Redirect Research Programs
- In the Staff Hiring Process
- In the Action Plans
- To Set Priorities

Brief explanation.

Inputs from stake holders will be used to direct programs in both extension and research, with the CNR advisory group being the means to prioritze CNR resources. Once the priorities have been determined, the information will be forwarded to CNR administration and program managers to make changes in the budgets and programming.

1. Name of the Planned Program

Small Farms

2. Program knowledge areas

- 205 Plant Management Systems 40 %
- 212 Pathogens and Nematodes Affecting Plants 10 %
- 211 Insects, Mites, and Other Arthropods Affecting Plants 12 %
- 601 Economics of Agricultural Production and Farm Management 7 %
- 604 Marketing and Distribution Practices 7 %
- 202 Plant Genetic Resources 10 %
- 307 Animal Management Systems 7 %
- 215 Biological Control of Pests Affecting Plants 7 %

3. Program existence

- Mature (More then five years)

4. Program duration

- Long-Term (More than five years)

5. Brief summary about Planned Program

According to the 2003 Agriculture Census of American Samoa, there were 7,094 farms that generated $58,196,832 in agricultural commodities. These commodities, either sold on the local market or used for family consumption including contributions to Samoan cultural events were valued at an average of $8,204 per farm. The average farm size declined from 7.1 acres in 1990 to 2.8 acres in 2003. The number of farmers, however, increased during that period from 1,126 to 7,094, in part due to the number of native Samoans returning from the US mainland after retirement to farm their communal lands. In addition, two-thirds of the territory's 76 square miles have slopes greater than 30% and annual rainfall ranges from 125 to 300 inches. As population pressure forces farming up these slopes, issues regarding erosion, landslides, flooding, habitat destruction, and watershed loss become more important. Traditional methods of soil conservation and crop sustainability are no longer viable. With less land available for farming, for example, soil is not allowed to lay fallow for a few growing seasons to recover lost nutrients. The projects included in the SMALL FARMS planned program are aimed at helping subsistence and commercial farmers and ranchersincrease yields and maintain sustainability. New varieties of disease-resistant vegetables and traditional crops are being imported to reduce inputs and maximize returns. Dwarf citrus varieties less susceptible to damage from strong winds are being introducedo the community. Inbreeding of swine is a cause of low production. We will reduce inbreeding by making boar services available, buying or trading stock between our extension program and the farming community and implementing artificial insemination services. To expand the marketing opportunities of our growers, the publication of the local producers' and marketing directories will continue. Work on the efficacy of reduced risk pesticides will continue, along with efforts to find biological control agents for the economically important pests. Our plant clinic identifies new and existing pests and diseases and recommends integrated management tactics. We will continue to import leaf blight resistant taro breeding lines with improved taste and diverse resistance genes and to search for acceptable varieties of Cavendish-type cooking bananas resistant to black leaf streak disease.

6. Situation and priorities

Because of American Samoa's geographic isolation and its limited resources, different lines of pigs are not available for breeding. Inbreeding in our swine industry is one cause of low production and slower growth rates. Typically, in the US mainland, pig farmers can purchase stud service from others, easily purchase different lines of pigs from other farmers, or purchase frozen semen and artificially inseminate their own stock. In American Samoa, most farmers raise Samoan pigs – mainly of the same breed. In the past 25 years, only three times was off-island stock brought in to address this problem - twice in the form of live animals and once through artificial insemination. These introductions brought genetic variability to our livestock industry. More genetic variability needs to be introduced to prevent further inbreeding. The agriculture extension plan is to revive the pig program and begin offering boar service, selling of extension's animals to farmers to reduce their inbreeding, buy or trade stock with farmers so that inbreeding in our stock does not become a problem. Also frozen semen will be imported for artificial insemination to benefit all.

Pesticide efficacy tests of reduced risk chemicals will be conducted to complement the IPM strategies for the different economic crops. New breeding lines of leaf blight resistant taro and black leaf streak resistant bananas will be introduced, tested and

released to the farming community to increase genetic variability. We will revive our vegetable seed sales program to better serve our clients. In the past, vegetable variety trials were conducted and the varieties that performed well were recommended to the only business that sells seeds in the Territory. Mark up was so high the farmers would not buy them. Because the seeds did not sell well, the business stopped importing them. These varieties should be available to the farming community so extension will import and sell these seeds directly to the farming community at a reasonable cost. For the fruit industry, the priority is to revive the program's fruit tree orchard by eliminating the poor varieties and introducing new ones. Once the quality of fruits can be determined, workshops will be conducted to teach the different methods of fruit propagation. The intent here is to have good quality locally produced fruits available in back yards and farmer roadside stands so that people would buy them instead of imported apples and oranges, peaches and pears thus effecting an import replacement scheme for the Territory. Because of its geographic isolation and relatively small natural resource base, developing an export industry is not a priority, but instead the publication of the American Samoa Marketing and Local Producers' directories will be revived to facilitate local marketing. Pesticide applicator training is being reported in the plan because no 3 (d) funds have been expended because of a lack of local matching.

7. Assumptions made for the Program

Programs that we will implement are what the farmers need and want to improve their operations.
Farmers want to improve their operations and will participate in the programs made available to them.
Farmers will invest time and money to improve their operation.
Funding for CNR activities will remain adequate.
Priorities will not change.
CNR will have the qualified personnel necessary to maintain its activities.

8. Ultimate goal(s) of this Program

To increase farm returns and the well-being of rural farm life, while improving sustainability and protecting the environment and human health. To improve crop quality/crop security through pest and disease monitoring and genetic diversity.

9. Scope of Program

- In-State Extension
- In-State Research

Inputs for the Program

10. Expending formula funds or state-matching funds

- Yes

11. Expending other then formula funds or state-matching funds

- No

12. Expending amount of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2007	4.9	0.0	2.4	0.0
2008	5.9	0.0	2.4	0.0
2009	5.9	0.0	2.4	0.0
2010	5.9	0.0	2.5	0.0
2011	5.9	0.0	2.5	0.0

Outputs for the Program

13. Activity (What will be done?)

Multiplication, evaluation and distribution of improved taro and banana varieties.
Laboratory bioassay for foliar plant diseases.
List of plant-parasitic nematodes on taro, their distribution and management.
Vegetable variety trials
Budding, grafting and airlayering workshops for citrus and other fruit trees
Pig project to reduce inbreeding of farmers' animal operations - buying/selling or trading of stock, boar services, artificial insemination.
Tissue culture of traditional staples and increasing genetic diversity to improve crop security.
Plant clinic diagnoses and recommendations
Pest surveys
Testing of reduce-risk pesticides
Biological control studies of economically important pests
Technical assistance with nuisance bee problems and assessment of apiculture

14. Type(s) of methods will be used to reach direct and indirect contacts

Extension	
Direct Method	**Indirect Methods**
• Education Class • Workshop • Group Discussion • One-on-One Intervention • Demonstrations • Other 1 (Plant Clinic Diagnoses) • Other 2 (On-farm research plot)	• Public Service Announcement • Newsletters • TV Media Programs • Other 1 (Brochures)

15. Description of targeted audience

Small and resource-limited farmers and ranchers, and all 4-H youth

16. Standard output measures

Target for the number of persons(contacts) to be reached through direct and indirect contact methods

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2007	2000	5000	500	2000
2008	2500	5000	500	2000
2009	2750	5000	500	2000
2010	3000	5000	500	2000
2011	3100	5000	500	2000

17. (Standard Research Target) Number of Patents

Expected Patents	
Year	Target
2007	0
2008	0
2009	0
2010	0
2011	0

18. Output measures

Output Text

Number of research projects completed

2007 Target: 1
2008 Target: 1
2009 Target: 1
2010 Target: 1
2011 Target: 1

Output Text

Number of cultivars of disease resistant taro and/or banana multiplied and released

2007 Target: 10
2008 Target: 10
2009 Target: 10
2010 Target: 10
2011 Target: 10

Output Text

Number of improved taro setts and/or banana suckers/bits disseminated

2007 Target: 1000
2008 Target: 2000
2009 Target: 3000
2010 Target: 4000
2011 Target: 4000

Output Text

Number of plant clinic diagnoses and recommendations made to assist farmers

2007 Target: 30
2008 Target: 30
2009 Target: 30
2010 Target: 30
2011 Target: 30

Output Text

Number of vegetable variety trials completed

2007 Target: 4
2008 Target: 5
2009 Target: 5
2010 Target: 5
2011 Target: 5

Output Text

Number of new fruit tree varieties introduced

2007 Target: 15
2008 Target: 10
2009 Target: 10
2010 Target: 10
2011 Target: 10

Output Text

Number of fruit tree propagation workshops

2007 Target: 4
2008 Target: 5
2009 Target: 5
2010 Target: 5
2011 Target: 5

Output Text

Number of pigs sold/traded and piglets born from AI

2007 Target: 50
2008 Target: 150
2009 Target: 150
2010 Target: 200
2011 Target: 250

Output Text

Number of directories published

2007 Target: 4
2008 Target: 4
2009 Target: 4
2010 Target: 0
2011 Target: 4

Output Text

NUmber of pesticide efficacy tests conducted

2007 Target: 4
2008 Target: 4
2009 Target: 4
2010 Target: 4
2011 Target: 4

Output Text

Number of Pesticide Applicator's Training workshops conducted

2007 Target: 6
2008 Target: 6
2009 Target: 6
2010 Target: 6
2011 Target: 6

Output Text

Number of biological control species introduced or augmented to control local pests.

2007 Target: 0
2008 Target: 1
2009 Target: 0
2010 Target: 1
2011 Target: 0

Outcomes for the Program

19. Outcome measures

Outcome Text: Awareness created

Outcome Text

Number of farmers growing improved varieties of taro and/or bananas

Outcome Type: Medium

2007 Target: 200
2008 Target: 300
2009 Target: 500
2010 Target: 500
2011 Target: 500

Outcome Text

Number of farmers targeting problems according to recommendations on plant clinic form

Outcome Type: Short

2007 Target: 20
2008 Target: 20
2009 Target: 20
2010 Target: 20
2011 Target: 20

Outcome Text

Number of farmers growing improved vegetable cultivars

Outcome Type: Medium

2007 Target: 10
2008 Target: 50
2009 Target: 75
2010 Target: 100
2011 Target: 150

Outcome Text

Number of people growing improved budded/grafted or airlayered fruit trees in their back yards.

Outcome Type: Long

2007 Target: 150
2008 Target: 200
2009 Target: 250
2010 Target: 300
2011 Target: 300

Outcome Text

Number of pig farmers upgrading their stock

Outcome Type: Long

2007 Target: 25
2008 Target: 75
2009 Target: 100
2010 Target: 150
2011 Target: 150

Outcome Text

Number of reduced risk pesticides recommended for use.

Outcome Type: Long

2007 Target: 2
2008 Target: 2
2009 Target: 2
2010 Target: 2
2011 Target: 2

Outcome Text

Number of pesticide applicators trained and certified

Outcome Type: Medium

2007 Target: 75
2008 Target: 100
2009 Target: 100
2010 Target: 100
2011 Target: 100

20. External factors which may affect outcomes

- Natural Disasters (drought,weather extremes,etc.)
- Economy
- Appropriations changes
- Competing Public priorities
- Competing Programatic Challenges

Description

The two fish canneries close down and there is a mass migration off-islandCyclones and tsunamis hitting American SamoaStaff or funding changes, i.e. loss of USDA-CSREES formula fundsIntroduction of exotic pestsChanges in institutional priorities and access to research and extension facilities, equipment and land.Changes in ASCC and/or CNR policies detrimental to planned programsUnresolved experiment station land boundary issues

21. Evaluation studies planned

- After Only (post program)
- Before-After (before and after program)
- During (during program)
- Time series (multiple points before and after program)

Description

All workshops, demonstrations, field days will be evaluated for summative and formative information.Qualitive information gathered from farm visits and interviewsSampling data on pest infestation levelsQualitative (banana) and quantitative (taro) evaluation of disease resistance

22. Data Collection Methods

- Sampling
- Whole population
- Telephone
- On-Site
- Structured
- Unstructured
- Tests

Description

{NO DATA ENTERED}

1. Name of the Planned Program

Ecosystem

2. Program knowledge areas

- 112 Watershed Protection and Management 40 %
- 133 Pollution Prevention and Mitigation 40 %
- 135 Aquatic and Terrestrial Wildlife 20 %

3. Program existence

- Intermediate (One to five years)

4. Program duration

- Long-Term (More than five years)

5. Brief summary about Planned Program

We plan to continue monitoring streams for coliform and E. coli which lie outside the interest of the ASEPA and to share our data with that agency. We hope to assist villagers and landowners in identifying sources of contamination through GIS mapping of piggeries and advise village leaders and ASEPA on either relocating point-sources of contamination or mitigating their impact on streams through approved sewage treatment systems. We plan to provide pertinent information to villagers interested in small-scale aquaculture projects utilizing indigenous species, using streams as a source of clean water. We plan to continue to be strong advocates for promoting watershed stewardship practices, especially among schoolchildren, by making the public aware of the rich inheritance of stream animals that sustained their ancestors and that may offer commercial opportunities for the present and future generations.

6. Situation and priorities

The integrity of American Samoa's streams continues to be an important issue with the public and several federal and local government agencies. The abuse of streams and drainage channels as receptacles of household trash and piggery effluent have led to flooding caused by clogged conduits and bridges, and a handful of deaths attributed to the water-borne bacterial disease, leptospirosis, found in the urine of infected pigs, dogs, and rats. The AS Environmental Protection Agency monitors the mouth of several streams and adjacent beaches for coliform, each month notifying the public which beaches have unacceptably high bacterial counts. ASEPA also monitors reservoirs for outlying villages dependent upon streams for their potable water. Again, several times each year these villagers are advised to boil their drinking water owing to excessive bacterial counts. The Natural Resources Conservation Service works with many pig farmers through its EQIP program to mitigate the pig waste load in streams, diverting it, instead, towards improving on-site soil fertility. Recently, the AS Dept. of Commerce established an Ocean Resource Management Council, headed by the Lt. Governor, that focuses on stream waste management and control. Our recent studies of stream water chemistry, flora, fauna, and currently coliform and E. coli contamination, have made us a leading agency for advising policy makers on watershed resources and a prime conduit of water quality information for the public.

7. Assumptions made for the Program

ASEPA will continue efforts to enforce the law requiring piggeries to be set back from streams and human dwellings by 50 feet or more.

Village mayors will prevent residents from using streams for the disposal of household trash, motor oil, and scrap metal.

The likelihood of contracting leptospirosis and other infectious diseases will not be a serious deterrent to using streams as a source of water for aquaculture.

8. Ultimate goal(s) of this Program

To mitigate stream water pollution and contamination in order to reduce the threat of infectious diseases, prevent flooding, and expand economic opportunities in the wise use of clean water.

9. Scope of Program

- In-State Extension

Inputs for the Program

10. Expending formula funds or state-matching funds

- Yes

11. Expending other then formula funds or state-matching funds

- No

12. Expending amount of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2007	0.6	0.0	0.0	0.0
2008	0.6	0.0	0.0	0.0
2009	0.6	0.0	0.0	0.0
2010	0.6	0.0	0.0	0.0
2011	0.6	0.0	0.0	0.0

Outputs for the Program

13. Activity (What will be done?)

Collect stream water samples for determining coliform and E. coli levels; identify point sources of sewage pollution and gauge extent of non-point sources attributed to feral pigs in headwaters; continue to share our expertise with other agencies and the public.

14. Type(s) of methods will be used to reach direct and indirect contacts

Extension	
Direct Method	Indirect Methods
• Education Class • Workshop • Group Discussion • One-on-One Intervention • Demonstrations	• Public Service Announcement • Newsletters • TV Media Programs • Web sites

15. Description of targeted audience

Pig farmers, government agencies, volunteer groups, schoolchildren.

16. Standard output measures

Target for the number of persons(contacts) to be reached through direct and indirect contact methods

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2007	100	2000	2000	2000
2008	100	2000	2000	2000
2009	100	2000	2000	2000
2010	100	2000	2000	2000
2011	100	2000	2000	2000

17. (Standard Research Target) Number of Patents

Expected Patents	
Year	Target
2007	0
2008	0
2009	0
2010	0
2011	0

18. Output measures

Output Text

Percent of piggeries mapped using GPS

2007 Target: 80
2008 Target: 80
2009 Target: 80
2010 Target: 80
2011 Target: 80

Output Text

Number of schools visited

2007 Target: 15
2008 Target: 15
2009 Target: 15
2010 Target: 15
2011 Target: 15

Outcomes for the Program

19. Outcome measures

Outcome Text: Awareness created

Outcome Text

Percent of piggeries removed from riparian area

Outcome Type: Short

2007 Target: 30
2008 Target: 20
2009 Target: 10
2010 Target: 0
2011 Target: 0

Outcome Text

Percent of piggeries with adequate water disposal system.

Outcome Type: Short

2007 Target: 30
2008 Target: 20
2009 Target: 10
2010 Target: 0
2011 Target: 0

20. External factors which may affect outcomes

- Competing Public priorities

Description

Pig farmers may appeal to their district representatives to curtail or delay moving illegally-placed piggeries 50 ft from streams, citing the expense of complying and whether they own land at a suitable site.

21. Evaluation studies planned

- Time series (multiple points before and after program)

Description

Monthly monitoring of stream mouths for coliform and E. coli contamination will allow us to determine whether or not removal of piggeries is sufficient for improving water quality.

22. Data Collection Methods

- Sampling

Description

Collect 100 mL water samples each month and determine most probable number (MPN) of bacteria per 100 mL using IDEXX brand Colisure and Enterolert enzyme substrate tests.

1. Name of the Planned Program

Human Health and Well-being

2. Program knowledge areas

- 703 Nutrition Education and Behavior 40 %
- 724 Healthy Lifestyle 20 %
- 721 Insects and Other Pests Affecting Humans 10 %
- 722 Zoonotic Diseases and Parasites Affecting Humans 10 %
- 712 Protect Food from Contamination by Pathogenic Microorganisms, Pa 20 %

3. Program existence

- Mature (More then five years)

4. Program duration

- Long-Term (More than five years)

5. Brief summary about Planned Program

Projects under the Human Health and Well-being planned program are tailored to address obesity and overweight, poor nutrition, lack of physical activity, food safety issues, vector control against lymphatic filariasis, leptospirosis and other diseases. F4HN professional and paraprofessional staff will use an integrated approach to provide nutrition education program to youth, homemakers, community residents, and other traditional and nontraditional clients. The Agriculture Extension Service staff will continue to emphasize the production of local vegetables in their effort to help F4HN clients begin gardening projects. F4HN staff will conduct workshops, presentations, and demonstrations in the villages, schools, churches, government agencies, and community groups on developing and testing recipes using locally grown produce. Recipes will be given out to the participants with the rationale that if more fresh vegetables are readily available, more will be used in home meals. More vegetables cooked at home translate to more vegetables eaten and improved health of families. TheF4HN personnel will continue to distribute nutrition educational handouts such as the Pacific Food Guide Pyramid, newly published English/Samoan recipe book, calendars, posters, and other nutrition materials to food stamp recipients, students, teachers, homemakers, and other clients. Community awareness programs on the negative impacts of obesity, overweight, poor nutrition, lack of physical activity, and food safety issues will be implemented. Sports, aerobics, and other exercise programs will be implemented in the schools, work place, and village settings as alternative physical activity programs. Furthermore, F4HN staff will conduct food safety workshops and demonstrations about safe food handling, storage and preparation to youth, childcare providers, WIC participants, Food Stamp clients, homemakers, and other clients. Demonstrations will be provided to school age children and adults on the correct way to wash hands to prevent food borne illness. F4HN personnel will continue to partner with local, regional, and national agencies, organizations, and institutions in planning, developing, and implementing programs to address obesity and overweight, poor nutrition and lack of physical activity, and food safety issues for both youth and adults in American Samoa. ASCC CNR will continue to join forces with the local departments of public health, EPA, agriculture, and USDA NRCS in developing a media campaign focused on what people can do to safeguard their families from contracting leptospirosis. Because of our success in bringing programs and information to the villages, the local office of homeland security has asked ASCC CNR to join with them in developing an overall avian influenza strategy for the Territory. ASCC CNR Entomologist and staff will participate in collaborative research on disease-carrying mosquitoes to strengthen the scientific basis for vector control efforts against endemic filariasis and potential exotic threats, including dengue, Ross River virus, West Nile virus, and chikunganya virus.

6. Situation and priorities

Obesity and overweight, poor nutrition and lack of exercise, food safety issues, filariasis, and leptospirosis are major health problems in American Samoa (AS). In 2003, the World Health Organization in its publication “Diet, Food Supply and Obesity in the Pacific” found that 83.6% of the males and 87.6% of the females in AS had a body mass index greater than 25. In a similar yet to be published study in 2005, Davison et.al. found in a stratified random

sample of 380 AS adolescents aged 11 to 18 years old that 32% and 34% were overweight and obese respectively. Moreover, a survey of 424 children between the ages of 1-10 years old in AS conducted in 2003 by a team from the University of Hawaii and Uniformed Services University, Maryland reported that: 11% of the 1-4 years old were too heavy for their height, 30% of the 5-10 year old children were overweight, and 15% were at risk of being overweight. The survey also found that 9% had blood sugar levels higher than recommended and more than 55% had blood cholesterol levels higher than recommended. The diets in AS are high in meats, starches, sugars, and fats and tend to be very low in vegetables, fruits and dairy products. Food safety related issues such as improper food handling and storage contributed to 1,299 cases of unspecified diarrhea reported in 1994. Furthermore, 14 cases of salmonellosis and six cases of food poisoning reported by LBJ (2004) could be attributed to improper food handling. Many cases of food borne illness are self treated and are not reported.
From 2003 to the present, there have been 13 cases of leptospirosis diagnosed at the LBJ Tropical Medical Center, AS's primary health care facility. Of this number, 4 have died. After the first death, a study, "Leptospirosis: A Seroprevalence Survey on American Samoa" was undertaken in 2004 by the National Center for Infectious Diseases at CDC. The study found that 17% of the 341 adults surveyed had serologic evidence of prior infection. The disease has been attributed to piggeries releasing their effluent into streams of water. Filariasis is endemic in AS. A 1999 survey by PacELF found 17% of residents had been infected with the parasite that causes lymphatic filariasis. Over 3,000 cases of dengue occurred in the territory during a 3-month period of the most recent dengue outbreak in 2001, and about 44% of the territory's people were infected in the 1979-1980 regional outbreak of Ross River virus. T hese diseases can be vectored by mosquito species occurring in AS. Source reduction—the elimination of water-holding containers that serve as breeding sites for the vectors—is recommended as the best way to control these vectors. CNR research seeks to help improve mosquito control efforts in the territory by collaboratively working to answer key questions about the efficacy and feasibility of source reduction. Therefore, programs addressing obesity and overweight as major health problems; poor nutrition and lack of physical activity as unhealthy behaviors; food safety issues; filariasis and other mosquito-borne disease threats; and leptospirosis are top priority issues for the next five years.

7. Assumptions made for the Program

Funding and staffing will continue.
Community coalitions and agency collaborations and partnerships will continue.
Clients will learn and change behaviors and lifestyles.
Obesity and overweight can be prevented and managed.
If more vegetables are easily available in home gardens, more will be cooked, more eaten with better health resulting.
With more practical information on leptospirosis given out to the public by the various agencies, because we all "sing the same song" and no confusing, conflicting information is disseminated, people will implement what is recommended.
Priorities will not change.
Mosquitoes can be controlled

8. Ultimate goal(s) of this Program

To live healthier lifestyles.
To have a backyard garden in every household
To reduce the incidence of leptospirosis through the effective dissemination of useful information.
To provide knowledge base for effective mosquito vector control.

9. Scope of Program

- In-State Extension
- In-State Research

Inputs for the Program

10. Expending formula funds or state-matching funds

- Yes

11. Expending other then formula funds or state-matching funds

- No

12. Expending amount of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2007	5.1	0.0	0.4	0.0
2008	6.0	0.0	0.4	0.0
2009	6.2	0.0	0.4	0.0
2010	6.2	0.0	0.4	0.0
2011	6.5	0.0	0.4	0.0

Outputs for the Program

13. Activity (What will be done?)

Nutrition education workshops.
Local produce (vegetable & fruit) recipe development and testing workshops.
Vegetable gardens will be established with interested homemakers and other clients.
Demonstrations of vegetable dishes with recipes passed out.
Food preparation, handling, and storage demonstrations.
Food safety workshops and demonstrations.
Nutrition awareness media (radio, TV, newspaper) programs.
Development, translation, and distribution of calendar, posters, brochures, and other educational materials.
Aerobics, sports, vegetable gardening, and other physical activity programs.
Leptospirosis brochures will be developed cooperatively with ASEPA, ASPH, ASDOA and USDA NRCS.
Research biology and control of disease-carrying mosquitoes, primarily Aedes polynesiensis.
Communicate results via research reports, brochures, seminars, TV, and individual contacts with other agencies.

14. Type(s) of methods will be used to reach direct and indirect contacts

Extension	
Direct Method	Indirect Methods
• Education Class • Workshop • Group Discussion • One-on-One Intervention • Demonstrations	• Newsletters • TV Media Programs

15. Description of targeted audience

All residents of American Samoa are the target audience including recipients of the Food Stamp and WIC programs, Mental Health Program clients, village and church women's organization members, homemakers, farmers, students, interested individuals, children and youth program participants.

16. Standard output measures

Target for the number of persons(contacts) to be reached through direct and indirect contact methods

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2007	1205	5500	700	6000
2008	1260	5570	770	6005
2009	1320	5570	820	6005
2010	1370	5570	870	6005
2011	1420	5570	920	6005

17. (Standard Research Target) Number of Patents

Expected Patents	
Year	Target
2007	0
2008	0
2009	0
2010	0
2011	0

18. Output measures

Output Text

Number of research projects completed

2007 Target: 1
2008 Target: 1
2009 Target: 1
2010 Target: 1
2011 Target: 1

Output Text

Number of Nutrition educational workshops

2007 Target: 10
2008 Target: 20
2009 Target: 20
2010 Target: 20
2011 Target: 20

Output Text

Number of vegetable gardening workshops

2007 Target: 5
2008 Target: 10
2009 Target: 10
2010 Target: 10
2011 Target: 10

Output Text

Number of vegetable gardens established

2007 Target: 25
2008 Target: 35
2009 Target: 40
2010 Target: 50
2011 Target: 50

Output Text

Number of different recipes using local produce given out

2007 Target: 10
2008 Target: 15
2009 Target: 25
2010 Target: 25
2011 Target: 30

Output Text

Number of food safety workshops conducted

2007 Target: 10
2008 Target: 20
2009 Target: 20
2010 Target: 20
2011 Target: 20

Output Text

Number of publications/brochures/posters/calendars

2007 Target: 6
2008 Target: 5
2009 Target: 5
2010 Target: 4
2011 Target: 4

Output Text

Number of exercise and physical activity programs completed

2007 Target: 10
2008 Target: 20
2009 Target: 20
2010 Target: 20
2011 Target: 20

Outcomes for the Program

19. Outcome measures

Outcome Text: Awareness created

Outcome Text
Number of program participants that acquired knowledge and developed skills in nutrition, vegetable gardening, nutritious meal preparation, food safety and health and physical activities

Outcome Type: Short

2007 Target: 300
2008 Target: 350
2009 Target: 400
2010 Target: 450
2011 Target: 500

Outcome Text
Number of people eating more vegetables as a result of the vegetable gardening project

Outcome Type: Short

2007 Target: 150
2008 Target: 210
2009 Target: 240
2010 Target: 300
2011 Target: 300

Outcome Text
Number of people continuing to grow vegetables as a result of the vegetable gardening project

Outcome Type: Short

2007 Target: 25
2008 Target: 25
2009 Target: 30
2010 Target: 40
2011 Target: 40

Outcome Text
Number of program participants that prepared and consumed more econo9mical and nutritious meals.

Outcome Type: Short

2007 Target: 300
2008 Target: 350
2009 Target: 400
2010 Target: 450
2011 Target: 500

Outcome Text
Number of program clients that adopted balance diets utilizing local produce and healthy foods.

Outcome Type: Short

2007 Target: 300
2008 Target: 350
2009 Target: 400
2010 Target: 450
2011 Target: 500

Outcome Text

Number of program clients who adopted safer food handling, storage, and preparatin practices

Outcome Type: Short

2007 Target: 300
2008 Target: 350
2009 Target: 400
2010 Target: 450
2011 Target: 500

Outcome Text

Number of program clients that increased participation in physical activities and exercises

Outcome Type: Short

2007 Target: 300
2008 Target: 350
2009 Target: 400
2010 Target: 450
2011 Target: 500

Outcome Text

Number of program clients that lost weight and improved self-esteem

Outcome Type: Short

2007 Target: 300
2008 Target: 350
2009 Target: 400
2010 Target: 450
2011 Target: 500

Outcome Text

Number of program clients that lived healthier lifestyles

Outcome Type: Short

2007 Target: 300
2008 Target: 350
2009 Target: 400
2010 Target: 450
2011 Target: 500

Outcome Text

Number of people increasing knowledgeof leptospirosis

Outcome Type: Short

2007 Target: 15000
2008 Target: 15000
2009 Target: 0
2010 Target: 0
2011 Target: 0

Outcome Text

Number of villages using ASCC CNR generated information to control mosquitoes

Outcome Type: Short

2007 Target: 0
2008 Target: 0
2009 Target: 2
2010 Target: 10
2011 Target: 15

20. External factors which may affect outcomes

- Natural Disasters (drought,weather extremes,etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Competing Public priorities
- Populations changes (immigration,new cultural groupings,etc.)

Description

Natural disasters: hurricanes, cyclones, tsunamis, flooding and others
Changes in funding (loss of formula funds)
Changes in staffing (loss of staff)
Changes in institutional priorities and access to facilities
Changes in collaborators' abilities or willingness to continue as partners
Clients' family and church obligations
Health
Politics
Cultural Acceptance
Exotic pests and diseases
Epidemic of leptospirosis including more deaths

21. Evaluation studies planned

- After Only (post program)
- Before-After (before and after program)
- During (during program)
- Time series (multiple points before and after program)

Description

{NO DATA ENTERED}

22. Data Collection Methods

- Sampling
- Telephone
- Structured
- Observation

Description
{NO DATA ENTERED}

1. Name of the Planned Program

Families, Youth and Communities

2. Program knowledge areas

- 803 Sociological and Technological Change Affecting Individuals, Fam 10 %
- 802 Human Development and Family Well-Being 10 %
- 801 Individual and Family Resource Management 40 %
- 806 Youth Development 40 %

3. Program existence

- Mature (More then five years)

4. Program duration

- Long-Term (More than five years)

5. Brief summary about Planned Program

Families, 4-H and Nutrition (F4HN) professional and paraprofessional staff will use an integrated approach to provide nutrition education program to youth, homemakers, community residents, and other traditional and nontraditional clients. The Agriculture Extension Service staff will continue to emphasize the production of local vegetables in their effort to help F4HN clients begin gardening projects. F4HN staff will conduct workshops, presentations, and demonstrations in the villages, schools, churches, to government agencies, and community groups on developing and testing recipes using locally grown produce. Recipes will be given out to the participants with the rationale that if more fresh vegetables are readily available, more will be used in home meals. More vegetables cooked at home translate to more vegetables eaten and improved health of families. The F4HN personnel will continue to distribute nutrition educational handouts such as the Pacific Food Guide Pyramid, newly published English/Samoan recipe book, calendars, posters, and other nutrition materials to food stamp recipients, students, teachers, homemakers, and other clients. Community awareness programs on the negative impacts of obesity, overweight, poor nutrition, lack of physical activity, and food safety issues will be implemented. Sports, aerobics, and other exercise programs are planned for schools, work place, and village settings as alternative physical activity programs. Furthermore, F4HN staff will conduct food safety workshops and demonstrations about safe food handling, storage and preparation to youth, childcare providers, WIC participants, Food Stamp clients, homemakers, and other clients. Demonstrations will be provided to school age children and adults on the correct way to wash hands to prevent food borne illness. F4HN personnel will continue to partner with local, regional, and national agencies, organizations, and institutions in planning, developing, and implementing programs to address obesity and overweight, poor nutrition and lack of physical activity, and food safety issues for both youth and adults in American Samoa.

6. Situation and priorities

Resource management (poverty), parenting, culture, and youth at risk issues are major areas of concern in American Samoa. More than 58.3% of American Samoa's families are considered poor and below the U.S. poverty level (American Samoa 2000 Census). Additionally, unemployment is about 18%; cost of living is high and more than 50% of average spending goes to food and housing. With per capita income at $4357 (Population Census 2000), people need to manage family resources wisely and take advantage of economic opportunities to maintain and increase their quality of life. Parent and child relationship is a critical issue in American Samoa. Lack of supervision for children and youth due to working or absent parents is a major concern. There is a need to help parents become better parents and for the children to

remain respectful of their parents. As American Samoa becomes more westernized, families are forced to reconcile their traditional culture of respect for elders and communal living with the often directly opposite western value of individualism. The Samoan youth are expected to serve their elders with respect and obedience with no back-talk. However, youth who grew up in Hawaii and the mainland United States have difficulties in accommodating their American lifestyles and expectations of parents and other family members. Attitudes toward the Samoan culture or fa'aSamoa are changing and that people are losing their perspective and respect for high moral standards and ethical conduct. Therefore, learning opportunities should be provided to preserve the Samoan culture, language, and family values. According the Population Census 2000 the median age was 21. The American Samoa 2001 Youth Risk Behavior Survey of 914 high school students in six schools reported: 21% of the students carried a weapon, 37.3% smoked cigarettes, 8.7% drank alcohol, 21.7% used marijuana, 23.4% had sexual intercourse, and 20.9% attempted suicide. Juvenile crime is increasing. High school dropout in 2003 was 3%. Addressing the youth at risk issues will help the youth of American Samoa become productive, self-reliant, and contributing members of the community.

7. Assumptions made for the Program

Funding and staffing will continue.
Community coalitions and agency collaborations and partnerships will continue.
Clients will learn and change behaviors, attitudes, practices, and lifestyles.
Clients will take advantage of economic and educational opportunities.
Youth at risk issues can be prevented and treated.
Priorities will not change.
Volunteers will assist with program implementation

8. Ultimate goal(s) of this Program

To become self-reliant, productive, and contributing members of the society
To acquire knowledge and develop entrepreneurial and job readiness skills
To become employable in the private and public sectors
To start home based and small businesses
To generate supplemental revenues
To improve parent and children relationship
To develop a sense of pride and appreciation of the Samoan culture
To make successful transition from youth at risk behaviors to clean, healthy, and esteemed lifestyles

9. Scope of Program

- In-State Extension
- In-State Research

Inputs for the Program

10. Expending formula funds or state-matching funds

- Yes

11. Expending other then formula funds or state-matching funds

- No

12. Expending amount of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2007	4.0	0.0	0.0	0.0
2008	5.0	0.0	0.0	0.0
2009	5.0	0.0	0.0	0.0
2010	5.0	0.0	0.0	0.0
2011	5.0	0.0	0.0	0.0

Outputs for the Program

13. Activity (What will be done?)

Entrepreneurial and job readiness workshops.
Apprenticeship and career shadowing programs.
Sewing and arts and crafts workshops and demonstrations.
Vegetable gardening and marketing projects.
Parenting and character counts workshops.
Samoan cultural workshops and demonstrations
4-H fairs, camps, and summer programs.
Youth at risk issues workshops, conferences, forums, and seminars.
Public awareness media (radio, TV, newspaper) programs.
Development, translation, and distribution of posters, brochures, and other educational materials.
Communicate results via accomplishment reports, brochures, presentations, seminars, TV, and individual contacts with other agencies.

14. Type(s) of methods will be used to reach direct and indirect contacts

Extension	
Direct Method	**Indirect Methods**
• Workshop • Group Discussion • One-on-One Intervention • Demonstrations • Other 1 (Competitions) • Other 2 (Summer programs)	• Newsletters • TV Media Programs • Other 1 (Brochures) • Other 2 (Handouts)

15. Description of targeted audience

All residents of American Samoa are the target audience including parents, youth, village and church women and youth organization members, homemakers, farmers, students, interested individuals, children and youth program participants.

16. Standard output measures

Target for the number of persons(contacts) to be reached through direct and indirect contact methods

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2007	200	500	400	1000
2008	300	500	500	1500
2009	400	500	600	1500
2010	500	500	700	1500
2011	500	500	700	1500

17. (Standard Research Target) Number of Patents

Expected Patents	
Year	Target
2007	0
2008	0
2009	0
2010	0
2011	0

18. Output measures

Output Text

Number of entrepreneurial and job readiness workshops

2007 Target: 10
2008 Target: 20
2009 Target: 20
2010 Target: 20
2011 Target: 20

Output Text

Number of apprenticeship and career shadowing programs

2007 Target: 3
2008 Target: 5
2009 Target: 5
2010 Target: 10
2011 Target: 10

Output Text

Number of sewing workshops and demonstrations

2007 Target: 10
2008 Target: 20
2009 Target: 20
2010 Target: 20
2011 Target: 20

Output Text

Number of arts and crafts workshops and demonstrations

2007	Target:	10
2008	Target:	20
2009	Target:	20
2010	Target:	20
2011	Target:	20

Output Text

Number of vegetable gardening and marketing projects

2007	Target:	5
2008	Target:	10
2009	Target:	10
2010	Target:	10
2011	Target:	10

Output Text

Number of Samoan cultural workshops and demonstrations

2007	Target:	10
2008	Target:	20
2009	Target:	20
2010	Target:	20
2011	Target:	20

Output Text

Number of vegetable gardens established

2007	Target:	25
2008	Target:	35
2009	Target:	40
2010	Target:	50
2011	Target:	50

Output Text

Number of parenting and character counts workshops

2007	Target:	10
2008	Target:	20
2009	Target:	20
2010	Target:	20
2011	Target:	20

Output Text

Number of 4-H fairs, camps and summer programs

2007 Target: 2
2008 Target: 3
2009 Target: 3
2010 Target: 3
2011 Target: 3

Output Text

Number of youth-at-risk issues workshops, conferences, forums and seminars

2007 Target: 10
2008 Target: 20
2009 Target: 20
2010 Target: 20
2011 Target: 20

Output Text

Number of public awareness media (radio, TV, nhewspaper) programs

2007 Target: 5
2008 Target: 10
2009 Target: 10
2010 Target: 10
2011 Target: 10

Output Text

Number of publications/brochures/posters/calendars

2007 Target: 3
2008 Target: 5
2009 Target: 5
2010 Target: 5
2011 Target: 5

Outcomes for the Program

19. Outcome measures

Outcome Text: Awareness created

Outcome Text

Number of program participants that acquired knowledge and developed skills in resources management (poverty), parenting, Damoan culture, and youth at risk issues

Outcome Type: Short

2007 Target: 300
2008 Target: 350
2009 Target: 400
2010 Target: 450
2011 Target: 500

Outcome Text

Number of participants generating revenues from resource management activities

Outcome Type: Short

2007 Target: 5

2008 Target: 10

2009 Target: 10

2010 Target: 10

2011 Target: 10

Outcome Text

Number of participants starting home-based and small businesses

Outcome Type: Short

2007 Target: 3

2008 Target: 3

2009 Target: 5

2010 Target: 5

2011 Target: 5

Outcome Text

Number of participants securing employment in the private and public sectors

Outcome Type: Short

2007 Target: 2

2008 Target: 3

2009 Target: 3

2010 Target: 5

2011 Target: 5

Outcome Text

Number of people continuing to grow and sell vegetables as a result of the vegetable gardening and marketing project

Outcome Type: Short

2007 Target: 25

2008 Target: 25

2009 Target: 30

2010 Target: 40

2011 Target: 40

Outcome Text

Number of program participants that improved parent and children relationship

Outcome Type: Short

2007 Target: 10

2008 Target: 20

2009 Target: 20

2010 Target: 20

2011 Target: 20

Outcome Text

Number of program clients that developed a sense of pride and appreciation of the Samoan culture

Outcome Type: Short

2007 Target: 50
2008 Target: 150
2009 Target: 200
2010 Target: 250
2011 Target: 300

Outcome Text

Number of program clients that became self-reliant, productive, and contributing members of the society

Outcome Type: Short

2007 Target: 10
2008 Target: 20
2009 Target: 40
2010 Target: 50
2011 Target: 100

Outcome Text

Number of program clients that made successful transition from youth at risk behaviors to clean, healthy, and esteemed lifestyles

Outcome Type: Short

2007 Target: 10
2008 Target: 20
2009 Target: 40
2010 Target: 50
2011 Target: 100

20. External factors which may affect outcomes

- Natural Disasters (drought,weather extremes,etc.)
- Economy
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Other

Description

Natural disasters: hurricanes, cyclones, tsunamis, flooding and others
Changes in funding (loss of formula funds)
Changes in staffing (loss of staff)
Changes in institutional priorities and access to facilities
Changes in collaborators' abilities or willingness to continue as partners
Clients' family and church obligations
Health
Politics
Cultural Acceptance

21. Evaluation studies planned

- After Only (post program)
- Retrospective (post program)
- Before-After (before and after program)
- During (during program)

Description

Pre/Post tests
Summative and formative evaluations
Accomplishment reports
Enrollment forms
Visitation reports
Focus group sessions
Annual surveys by ASCC CNR CES
Qualitative information gathered from home and village visits and interviews
Business records and licenses
Employment records

22. Data Collection Methods

- Sampling
- Whole population
- Structured
- Observation
- Tests

Description

{NO DATA ENTERED}