2015 American Samoa Community College Combined Research and Extension Annual Report of Accomplishments and Results

Status: Accepted

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I. Report Overview

1. Executive Summary

Executive Summary for 2015 Annual Report
Planned Programs for 2015 were:
1. Families, Youth & Communities
2. Food Security
3. Human Health & Wellness
4. Ecosystem

Major Challenges in 2015 were:
1. the Accreditation status of the college
2. Involvement in Budget planning and learning to act in more cost-effective ways such as in energy conservation.
3. Inventory monitoring has improved.

Major Accomplishment in 2015 was:
1) the investment in the Plant Pathology lab which can now do DNA sequencing and is conducting a study of the Taro Genome. 2) Continued development in the Horticulture research area in enriching soils with local materials. 3) Training of farmers in Food Safety and Hygiene. 4) Assistance to community in fighting dengue and other mosquito-borne diseases.

Participation
Staff participation, including the heads of Research and Extension, continued as usual in preparing the 2015 Annual Report.
Under Research those who helped write the report were the Entomologist, the Plant Pathologist, and the Research Horticulturalist, the GPS/GIS Specialist, and the Health Communications Researcher.
Under Extension those who helped write the 2014 Annual Report were the Agriculture Extension Manager, the Forestry Manager, the 4H Manager, the Family & Consumer Sciences Manager, and the UH Sea Grant Manager.
Support staff were involved in reading, understanding, and discussing the new mission which will be in the 2017 POW. This has opened the eyes of the support staff and all others about who we are, what we do, and what we stand for.

Stakeholder Input & Documentation
The staff has improved in this area and seem to have a better understanding of preparing the actual source documents with stakeholder input.

Outputs & Outcomes
The discussion about outputs and outcomes continued in 2015. What was helpful to the staff, that is, what helped to guide the staff's understanding of the difference, was that "outputs" measure the amount of work the staff did in 2015. "Outcomes" measure the difference our work was making in the community - in what the community learned, in what they have done differently, and in what in the condition of their lives has changed or improved. More cognitive connection was made to conditions and social determinants.

Relation to Internal Processes
Staff were required to state the NIFA-approved "Plan of Work" output, outcome, activity, or goal to justify purchases, travel, check requests, vehicle-use, and other items that require Hatch or Smith Lever funds. They used the POW for bi-weekly reports and quarterly reports which are required by the American

Samoa Government.
Data from the Annual Report was related to Accreditation processes.

Total Actual Amount of professional FTEs/SYs for this State

Year: 2015	Extension		Research	
	1862	1890	1862	1890
Plan	21.5	0.0	14.2	0.0
Actual	0.0	0.0	0.0	0.0

II. Merit Review Process

1. The Merit Review Process that was Employed for this year

- Combined External and Internal University External Non-University Panel

2. Brief Explanation

Research and extension initiatives are client-driven, that is, based upon the latest stakeholder inputs. Owing to our limited number of staff, which serves a population of over 55,000, each Researcher and Extension Agent tries to match his/her knowledge skills and expertise to high priority client concerns according to federal grant requirements. All Researchers have joint research-extension responsibilities, which also helps ensure research remains focused on addressing important community needs.
An investigator proposing a new research project is required to submit a project outline detailing the justification, objectives, procedures, and other pertinent information that would allow someone with relevant experience to adequately evaluate the proposal. The Research Coordinator then distributes this project outline to three or more appropriate scientists, extension professionals, or other staff within the college and to scientists and others with suitable expertise in other agencies. A cover letter explains the necessity for a merit review, lists three criteria by which to judge the proposal, and gives an assurance of anonymity. The three criteria are: 1. How important is the proposed activity to advancing knowledge and understanding of agricultural or health-related issues in American Samoa and other Pacific islands? 2. Is the project based on sound scientific principles? Are the proposal's arguments supported by verifiable facts? 3. Are sufficient resources available to bring the project to a successful conclusion? How well qualified is the individual or team to conduct the project? Are sufficient funds, facilities, equipment, and assistance available? The Research Coordinator collects the reviews and returns them to the investigator. The investigator may then choose to modify the proposal, based on the reviews, before resubmitting it to the Research Coordinator. The Research Coordinator accepts or rejects the proposal. If the latter, the investigator may appeal to the Director, who makes the ultimate decision. If the Research Coordinator accepts the proposal, it is forwarded to the Director for final approval or rejection.
Merit review of extension programs is an ongoing process. As described in the Stakeholder Input section, formal and informal solicitation of feedback is a part of extension workshops, activities, meetings, trainings, and farm visits. These inputs help Extension Agents and Program Managers assess the effectiveness of programs and identify ways to improve them. The Agriculture, Forestry, Family and Consumer Sciences, and 4-H Extension Program Managers oversee ongoing programs and evaluate new initiatives to ensure they are effectively addressing client needs. Annual performance reviews provide additional opportunities for Program Managers to evaluate programs and provide useful feedback to the Extension Agents. Ongoing programs and new initiatives must be approved by the Extension Coordinator and responsibility for final approval of all proposed extension activities rests with the Director.

III. Stakeholder Input

1. Actions taken to seek stakeholder input that encouraged their participation

- Use of media to announce public meetings and listening sessions
- Targeted invitation to traditional stakeholder groups
- Targeted invitation to non-traditional stakeholder groups
- Targeted invitation to traditional stakeholder individuals
- Targeted invitation to non-traditional stakeholder individuals
- Targeted invitation to selected individuals from general public
- Survey of traditional stakeholder groups
- Survey of traditional stakeholder individuals
- Survey of the general public
- Survey of selected individuals from the general public
- Other (Focus groups)

Brief explanation.

Stakeholders' participation is encouraged through media announcements (TV, radio, newspaper) and social media (facebook); targeted invitations to traditional and non-traditional individuals; surveys of general public and of select group; and focus group and evaluation sessions at workshops, meetings, and activities.
Agriculture Extension Program (AEP): AEP used two (2) TV news spots, two (2) Radio Talk Shows, and five (5) Samoa News (newspaper) articles, photos with captions, and PSAs to announce (2) public meetings (30 participants); four (4) farm safety days with 1100 participants; three (3) pesticides workshops (42 participants); five (5) taro breeding workshops (30 participants); five (5) vegetable workshops (35 participants); three (3) swine workshops (12 participants); meeting with the Governor, four (4) department directors (DOA, DOH, DOE, ASEPA), and 70 farmers. Stakeholders' participation in focus group and evaluation sessions at 12 tours/field trips (1200 students) and aforementioned workshops, and farm visitations to 98 commercial and subsistence farmers also seek stakeholder input and encourage stakeholders' participation.
Forestry Program: Forestry Program used two (2) TV news spots, three (3) Samoa News (newspaper) articles, photos with captions, PSAs, and social media (facebook page) to announce (2) Advisory Council meetings (30 participants); 19 workshops (850 participants) on conservation education, climate change, invasive species, and land management activities at eight (8) schools and eleven (11) villages. Stakeholders' participation in focus group and evaluation sessions at 27 schools tours (1750 students) to forestry greenhouses and demonstration projects also seek stakeholder input and encourage stakeholders' participation.
Family Consumer Science Program (FCS): FCS staff used 14 TV news spots, 12 radio programs, 10 Samoa News (newspaper) articles, photos with captions, PSAs, and social media (facebook page) to announce: five (5) public meetings in the Manu'a islands; 12 Basic Nutrition workshops (1334 participants) at 12 churches; 12 Basic Nutrition workshops at Food Stamp Program (930 participants); and 14 sewing workshops (700 participants). Stakeholders' participation in focus group and evaluation sessions at 12 school tours (507 students) and aforementioned workshops also seek stakeholder input and encourage stakeholders' participation. Moreover, participation of 1100 stakeholders in completing the need assessments, survey, Family Enrollment Form, 24-hour Food Recall, and Behavior Checklist instruments seek stakeholder input and encourage stakeholders' participation.

4-H Program: 4 -H staff used 15 TV news spots, two 2 radio programs, 27 newspapers (Samoa News) articles, photos with captions, PSAs, and social media (facebook page) to publicize: 2 youth camps (70 participants); 27 volunteer leaders meetings (300 participants); Farm Fair (280 participants); Coast Weeks (400 participants); and 50 4-H workshops (500 participants. Stakeholders' participation in focus group and evaluation sessions at 20 tours (1000 participants); three (3) First Friday's at the Fagatogo Market (180 participants); and abovementioned workshops also seek stakeholder input and encourage stakeholders' participation.

2(A). A brief statement of the process that was 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 Internal Focus Groups
- Use External Focus Groups
- Open Listening Sessions
- Needs Assessments
- Use Surveys
- Other (formative and summative evaluations of workshops)

Brief explanation.

Agriculture Extension Program (AEP): AEP used focus group and evaluation sessions, surveys, and meeting minutes to identify individuals and groups at: two (2) public meetings (30 participants); four (4) farm safety days with 1100 participants; three (3) pesticides workshops (42 participants); farm visitations to 98 commercial and subsistence farmers; five (5) taro breeding workshops (30 participants); five (5) vegetable workshops (35 participants); three (3) swine workshops (12 participants); 12 tours/field trips (1200 students); and meeting with the Governor, four (4) department directors (DOA, DOH, DOE, ASEPA), and 70 farmers.
Forestry Program: Forestry Program used focus group and evaluation sessions, surveys, and meeting minutes to identify individuals and groups at: (2) Advisory Council meetings (30 participants); 19 workshops (850 participants) on conservation education, climate change, invasive species, and land management activities at eight (8) schools and eleven (11) villages; and 27 schools tours (1750 students) to forestry greenhouses and demonstration projects.
Family & Consumer Science Program: FCS used focus group and evaluation sessions, bilingual surveys instruments, two (2) needs assessments, and testimonies to identify individuals and groups at: 12 Basic Nutrition workshops (1334 participants) at 12 churches; 12 Basic Nutrition workshops at Food Stamp Program (930 participants); 14 sewing workshops (700 participants); and 12 school tours (507 students). Moreover, information from the 1100 completed surveys, Family Enrollment Form, 24-hour Food Recall, and Behavior Checklist instruments were used to identify individuals and groups.
4-H Program: 4-H staff used focus group and evaluation sessions, bilingual survey instruments, meeting minutes, and direct communication to identify individuals and groups at: 50 4-H workshops (500 participants; 20 tours (1000 participants); 2 camps (70 participants); 27 volunteer leaders meetings (300 participants); Farm Fair (280 participants); Coast Weeks (400 participants); and three (3) First Friday's at the Fagatogo Market (180 participants).

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

1. Methods for collecting Stakeholder Input

- Meeting with traditional Stakeholder groups
- Survey of traditional Stakeholder groups
- Meeting with traditional Stakeholder individuals
- Survey of traditional Stakeholder individuals
- Meeting with the general public (open meeting advertised to all)
- Survey of the general public
- Meeting specifically with non-traditional groups
- Survey specifically with non-traditional groups
- Meeting specifically with non-traditional individuals
- Survey specifically with non-traditional individuals
- Meeting with invited selected individuals from the general public
- Survey of selected individuals from the general public
- Other (Focus group sessions)

Brief explanation.

Agriculture Extension Program: Collected inputs from 2622 stakeholders through focus group and evaluation sessions, and meeting minutes at: two (2) public meetings (30 participants); four (4) farm safety days with 1100 participants; three (3) pesticides workshops (42 participants); farm visitations to 98 commercial and subsistence farmers; five (5) taro breeding workshops (30 participants); five (5) vegetable workshops (35 participants); three (3) swine workshops (12 participants); 12 tours/field trips (1200 students); and meeting with the Governor, four (4) department directors (DOA, DOH, DOE, ASEPA), and 70 farmers.
Forestry Program: Collected inputs from 2630 stakeholders through focus group and evaluation sessions, and meeting minutes at: (2) Advisory Council meetings (30 participants); 19 workshops (850 participants) on conservation education, climate change, invasive species, and land management activities at eight (8) schools and eleven (11) villages; and 27 schools tours (1750 students) to forestry greenhouses and demonstration projects.
Family & Consumer Science Program: Collected inputs from 4571 stakeholders through focus group and evaluation sessions, bilingual surveys instruments, and testimonies at: 12 Basic Nutrition workshops (1334 participants) at 12 churches; 12 Basic Nutrition workshops at Food Stamp Program (930 participants); 14 sewing workshops (700 participants); and 12 school tours (507 students). Moreover, inputs were collected from 1100 clients through survey, Family Enrollment Form, 24-hour Food Recall, and Behavior Checklist instruments.
4-H Program: Collected inputs from 2730 stakeholders through focus group and evaluation sessions at: 50 4-H workshops (500 participants; 20 tours (1000 participants); 2 camps (70 participants); 27 volunteer leaders meetings (300 participants); Farm Fair (280 participants); Coast Weeks (400 participants); and 3 First Friday's at the Fagatogo Market (180 participants); Moreover, the 4-H Program used meeting minutes, bilingual survey instruments, and direct communication to collect stakeholders' inputs.

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.

Stakeholders' inputs were used to identify emerging issues; redirect Extension Programs; hire staff; and to make changes, improvements, and/or to develop new programs for the community.
Agriculture Extension Program (AEP): The stakeholders' feedback identified common needs and issues that must be addressed and noted in the 2017 Plan of Work. Some of these issues include farmers' language and cultural barriers, lack of available farming supplies on island, high cost of feeds and pesticides, swine inbreeding, School Lunch Program, ban of produce by the local Department of Agriculture, and pesticide control on vegetables. AEP hired two additional staff.
Forestry Program: Inputs from stakeholders were considered in making the needed program changes, program development, and how to improve public awareness. Launched a conservation education campaign and awareness on the importance of protecting the forests, trees, watersheds, and control of invasive species. Currently working with local and federal partners on developing policies and establishing a Board to prevent tree cutting in public and government lands. Hired a UCF Coordinator.
Family & Consumer Science Program:
As a result of the stakeholders' inputs, FCS program extended the sewing program to 15 non-traditional clients from government agencies and private companies, and conducted five (5) sewing workshops attended by 170 residents of the Manu'a islands. Also the FCS program hired one FCS Assistant.
4-H Program: Stakeholders' inputs were used to identify the following emerging issues: include the local 4-H club members in the STEM (Science, Technology, Engineering, and Math) program; implement the Health Rocks Program in After-School Programs to address the health and childhood obesity problems; need to develop a legal comprehensive liability form for minors and volunteers; and need to revive the 4-H Foundation. Hired a 4-H Agent, and developed action plans to address emerging issues from stakeholders' inputs.

Brief Explanation of what you learned from your Stakeholders

Agriculture Extension Program (AEP): The priority areas/issues learned from the 2622 AEP stakeholders include: need more Extension staff visibility in the community through program delivery and outreach services; need new swine breeds and AI (artificial insemination) demonstrations; need more improved/resistant taro and banana varieties; need new fruit tree varieties; need to assist clients by providing wood chipping service for pig farmers; need pesticide residue testing equipment; and need for more qualified staff including field agents, and more vehicles and equipment to effectively deliver the programs to the community.
Forestry Program: The priority areas/issues learned from the 2630 Forestry Program stakeholders include: need to control invasive species (plants & animals); program staff should be more visible in the community to assist and encourage landowners to protect the environment and plant more

native trees to address climate change challenges; continue to work with village councils to manage watersheds and coastal areas; extend the programs and services to Aunu'u and Manu'a islands; continue and sustain existing collaboration and partnerships with other government agencies and non-government organizations; and hire more professional staff.
Family & Consumer Science Program (FCS): The priority areas/issues learned from the 3871 FCS Program stakeholders include: more nutritional recipes; need federal government approval for Food Stamp Program recipients to purchase produce from local roadside markets and food stalls; request for FCS to offer nutrition education workshops after hours and weekends; request for FCS to extend nutrition education workshops to Aunu'u and Manu'a islands; and need to offer nutrition, food safety, and physical activity workshops to government agencies and non-government organizations. Moreover, the stakeholders' inputs priority areas/issues collected from more than 700 FCS sewing program clients include: need to repeat the basic sewing workshops for beginners; need to offer advanced level sewing; need to provide enough sewing machines for clients during workshops; need to organize a Fair to display and exhibit sewing products/outfits; need to conduct traditional and non-traditional handicrafts and arts workshops; and need assistance with starting sewing businesses.
4-H Youth Program: Stakeholders' inputs from 2730 4-H Program participants/clients include: more youth educational programs in the community; need to provide resources/supplies for activities; adults, parents, and volunteers need to understand the 4-H experiential model; extend 4-H programs into the villages and churches; need to revive the 4-H Foundation; and extend the STEM (Science, Technology, Engineering, & Math) program to 4-H school and village clubs

Overall, the stakeholders are asking for more new programs, services, and resources. ASCC-ACNR Education, Research, and Extension programs are addressing many of the aforementioned needs and issues given the available human, financial, and physical resources. This explains the need for more staff, professionals, and resources. Some of the new priority areas will be included in the 2017 Plan of Work.

IV. Expenditure Summary

1. Total Actual Formula dollars Allocated (prepopulated from C-REEMS)			
Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
1163205	0	1114435	0

2. Totaled Actual dollars from Planned Programs Inputs				
	Extension		Research	
	Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
Actual Formula	0	0	0	0
Actual Matching	0	0	0	0
Actual All Other	0	0	0	0
Total Actual Expended	0	0	0	0

3. Amount of Above Actual Formula Dollars Expended which comes from Carryover funds from previous				
Carryover	0	0	0	0

V. Planned Program Table of Content

V(A). Planned Program (Summary)

Program # 1

1. Name of the Planned Program

Families, Youth and Communities

☑ Reporting on this Program

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
801	Individual and Family Resource Management	40%		0%	
802	Human Development and Family Well-Being	10%		0%	
803	Sociological and Technological Change Affecting Individuals, Families, and Communities	10%		0%	
806	Youth Development	40%		0%	
	Total	100%		0%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2015	Extension		Research	
	1862	1890	1862	1890
Plan	6.0	0.0	5.0	0.0
Actual Paid	0.0	0.0	0.0	0.0
Actual Volunteer	0.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	**1890 Extension**	**Hatch**	**Evans-Allen**
0	0	0	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
0	0	0	0
1862 All Other	**1890 All Other**	**1862 All Other**	**1890 All Other**
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

- Arts & Crafts
- Outdoor Recreation/Camps
- Home Economic Workshops
- Samoan Cultural Hands-On
- Summer Curriculum
- Partnership Collaboration Workshop
- Physical and Health
- Animal Farm/Livestock
- Vegetable gardening
- Nutrition
- Sewing
- Ag. in the Classroom
- Aquaculture

2. Brief description of the target audience

The targeted audiences are the residents of American Samoa including families, parents, children, youth, homemakers, youth organizations, farmers, students, or any interested individual in the American Samoa.

3. How was eXtension used?

eXtension was not used in this program

V(E). Planned Program (Outputs)

1. Standard output measures

2015	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	700	3000	1000	7000

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year:	2015
Actual:	0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2015	Extension	Research	Total
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of camps.

Year	Actual
2015	2

Output #2

Output Measure

- Number of youth who attended the camps.

Year	Actual
2015	70

Output #3

Output Measure

- Number of group educational workshops and program activities conducted.

Year	Actual

2015	136

Output #4

Output Measure

- Number of youth that participated in educational workshops and program activities.

Year	Actual
2015	943

Output #5

Output Measure

- Number of adults that participated in educational workshops and program activities.

Year	Actual
2015	465

Output #6

Output Measure

- Number of volunteers that participate in professional development workshop.

Year	Actual
2015	79

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	% of youth who increase knowledge of life skills concepts and practices.
2	% of youth who were able to acquire knowledge for positive self-development.
3	% of participants who developed new life skills due to all the Program activities.
4	% of program participants who have improved parent and children relationship through educational and recreational activities.

Outcome #1

1. Outcome Measures

% of youth who increase knowledge of life skills concepts and practices.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2015	70

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Resource management (poverty), parenting, culture, and youth at risk issues continued to be the major areas of concern in American Samoa. More than 58.3% of American Samoa families are considered poor and below the US poverty level. According to the 2011 CDC American Samoa YRBBS, 15.2% of high school students smoked marijuana one or more times during their life. Also in 2011, 28.8% were offered, sold, or given an illegal drug on school property compared to 14.3% in 1993. 38.1% were never taught about HIV or AID.

What has been done
In 2015, the FCS, Forestry Program, Agriculture Extension Program, and 4-H conducted 134 in-school workshops, after-school, program tours, community workshops and 2 camps.

Results
About 70% or 658 of youth participants participants acquired knowledge and skills.

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management
802	Human Development and Family Well-Being
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
806	Youth Development

Outcome #2

1. Outcome Measures

% of youth who were able to acquire knowledge for positive self-development.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2015	70

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Statistically, 58.3% of families in American Samoa are considered poor and below the poverty level. Based on the American Samoa YRBBS, 47% of high school students have tried cigarette smoking, 32% had sexual intercourse,20.5% attempted suicide one or more times and 22.8% drinks alcohol.

What has been done
In 2015, FCS, and the 4-H Program conducted 48 workshops for the youth and 16 workshops for families. The goals of the programs are to teach skills and empower the participants (youth) and parents to make the right choices.

Results
About 70% (658) of the 941 workshop participants acquired knowledge for positive self-development.

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management
802	Human Development and Family Well-Being
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
806	Youth Development

Outcome #3

1. Outcome Measures

% of participants who developed new life skills due to all the Program activities.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2015	70

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
As reported in 2011, more than 58.3% of American Samoa families are considered poor and below the US poverty level. 50% of average spending goes to food and housing.According to YRBBS, 86.2% of high school students are not physically active for at least an hour on all 7 days of the week.38.9% were obese, 21.3 were overweight, 46.5% were not trying to lose weight, and 25.7% played video or computer games for 3 or more hours a day.

What has been done
In 2015, FCS conducted 12 sewing workshops and 12 Parenting workshops for adults. The Agriculture Extension staff conducted 11 vegetable garden workshops and established 37 vegetable gardens. The 4-H program conducted 48 workshops that can enhance hands-on skills, decision making skills, develop positive leadership skills, and increase knowledge of entrepreneurship.

Results
In 2015, 450 participants received certificate of completion in the sewing program. The participants were able to tailored and sew their own clothes. About 70% of participating youth and adults in the programs acquired knowledge and developed skills in resource management, nutrition, food safety, and youth at risk issues.

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management
802	Human Development and Family Well-Being
803	Sociological and Technological Change Affecting Individuals, Families, and Communities

806 Youth Development

Outcome #4

1. Outcome Measures

% of program participants who have improved parent and children relationship through educational and recreational activities.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2015	75

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Resource management (poverty), parenting, culture, and youth at risk issues continued to be major issues of concern in American Samoa. According to CDC 2011 American Samoa YRBBS, 32% of teenagers had already had sexual intercourse and 35% did not use any pregnancy prevention method.41.3% had alcohol at least once in their life and 47% had smoked cigarettes at least once.

What has been done
Extension Programs conducted workshops and provided resources to empower youth to make the right choices and to help parents become better parents. The 4-H program conducted 48 workshops that can enhance hands-on skills, decision making skills, develop leadership skills, and increase knowledge of entrepreneurship. FCS agents conducted 12 parenting workshops (450 participants.)

Results
1425 of program participants have improved parent and children relationship through educational and recreational activities. 450 participants completed parenting workshops. About 75% of the 1900 program participants acquired knowledge and developed skills in resource management, Samoan culture, and youth at risk issues.

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management
802	Human Development and Family Well-Being

803	Sociological and Technological Change Affecting Individuals, Families, and Communities
806	Youth Development

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Other (Staff Recruitment, Culture, tsunami, hurricane,transportation to the Manu?a islands)

Brief Explanation

The Planned Programs are being conducted at the college campus and in the community, including the villages. In FY2015, The programs could only visit the Manu'a islands once because of the lack of transportation by sea and air. Some issues (premarital sex, teenage pregnancy, sexually transmitted disease) are considered taboo because of cultural and religious beliefs.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Evaluation results indicated that participants have increased knowledge due to the planned program activities. Positive feedback and critical comments were used to assess the program of what working and what is not. In 2015, 450 participants received certificates of completion in the sewing program. About 75% (1425) of the 1900 program participants acquired knowledge and developed skills in resource management, Samoan culture and youth-at-risk issues.
Taking the program to the villages makes a difference in the number of participants. Most families do not have the time or means of transportation to attend programs after work or schools. Overall, clients and participants reported that Extension programs are doing a good job and are grateful that the staff members are able to travel out in the villages and schools to conduct the programs. As the only agricultural research station in the territory, schools in the territory frequently bring students to the campus for visual and hands-on experience. In 2015, school tours have decreased due to lack of public transportation for public schools, but there has an increased of requests for agents to provide workshop at the schools. Tours range from 15 to 130 students/adults per visit. The tour requests from schools are based on the school curriculum.
All Extension Programs are well received by the public and community. ASCC-ACNR will continue to provide
American Samoa families, youth and community with valuable workshop and programs for

a positive
impact. There is still a need for more qualified staff including field agents, and more vehicles and equipment to effectively deliver the programs to the community.
In FY2015, the 4-H and FCS programs were able to reach 7301 participants in all the programs that were conducted. 4-H clubs conducted summer overnight camps with a total of 70 participants. The Forestry Program conducted Arbor Week with 500 youth and 50 adults. participating. The Ag. Extension Program conducted 4 safety day workshops at 4 different schools, established 37 vegetable gardens, and a farm safety day on campus with 180 participants.

Key Items of Evaluation

V(A). Planned Program (Summary)

Program # 2

1. Name of the Planned Program

Food Security

☑ Reporting on this Program

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
102	Soil, Plant, Water, Nutrient Relationships	0%		10%	
111	Conservation and Efficient Use of Water	5%		0%	
202	Plant Genetic Resources	10%		20%	
205	Plant Management Systems	10%		20%	
211	Insects, Mites, and Other Arthropods Affecting Plants	5%		20%	
212	Pathogens and Nematodes Affecting Plants	10%		20%	
215	Biological Control of Pests Affecting Plants	5%		0%	
306	Environmental Stress in Animals	5%		0%	
315	Animal Welfare/Well-Being and Protection	5%		0%	
401	Structures, Facilities, and General Purpose Farm Supplies	5%		0%	
403	Waste Disposal, Recycling, and Reuse	0%		5%	
604	Marketing and Distribution Practices	5%		0%	
703	Nutrition Education and Behavior	10%		0%	
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources	10%		0%	
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins	5%		5%	
903	Communication, Education, and Information Delivery	10%		0%	
	Total	100%		100%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2015	Extension		Research	
	1862	1890	1862	1890

Plan	8.0	0.0	5.0	0.0
Actual Paid	0.0	0.0	0.0	0.0
Actual Volunteer	0.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	**1890 Extension**	**Hatch**	**Evans-Allen**
0	0	0	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
0	0	0	0
1862 All Other	**1890 All Other**	**1862 All Other**	**1890 All Other**
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

• Import, micropropagate (tissue culture), multiply, evaluate, and distribute improved taro and vegetable cultivars to farmers
• Perform crosses of elite taro cultivars and evaluate progenies for yield, disease resistance, and taste
• Collect or Import, multiply, and distribute improved fruit tree varieties
• Conduct vegetable and fruit tree workshops
• Provide plant clinic diagnoses and recommendations for diseases/pests management
• Conduct surveys of isolates of Phytophthora colocasiae
• Conduct pest surveys
• Develop Food Safety Policies & Procedures
• Implement Food Safety, Sanitation, and Protection Practices
• Conduct Pesticides Safety, and Farm Safety Trainings
• Conduct Farm visitations and demonstrations
• Develop Public Awareness
• Produce and evaluate growing media of locally sourced materials as alternatives to peat and mined top soil
• Conduct workshops to present locally produced growing media to farmers
• Maintain Center for Sustainable Integrated Agriculture and Aquaculture
• Provide technical assistance on production, disease, and nutrition issues to aquaculture farmers
• Conduct workshops on aquaculture, including integrated practices such as aquaponics and tilapia-cum-pig systems.
• Reduce inbreeding of farmers' animal operations - buying/selling or trading of stock, boar services, artificial insemination, training in feeding management, manage control and improvement in facilities.
• Conduct community workshops, school programs and farm visits to provide education and activities on the program developments

2. Brief description of the target audience

Small and resource-limited farmers, commercial farmers, aquaculture farmers, forestry clients, hobby farmers, potential farmers, general public, school students, 4-H members, church youth and other

community group members.

All residents of American Samoa are included in the target audience, which includes: students, teachers, food handlers, food vendors, homemakers, cooks, farmers, village residents, church members, children and youth program participants.

3. How was eXtension used?

eXtension was not used in this program

V(E). Planned Program (Outputs)

1. Standard output measures

2015	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	0	0	0	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2015

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2015	Extension	Research	Total
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of cultivars of disease resistant taro and improved varieties of sweet potato multiplied and released.

Year	Actual
2015	8

Output #2

Output Measure

- Number of improved taro sets and/or sweet potato slips disseminated.

Year	Actual
2015	1502

Output #3

Output Measure

- Number of plant clinic diagnoses and recommendations made to assist clients.

Year	Actual
2015	18

Output #4

Output Measure

- Number of vegetable variety demonstrations completed.

Year	Actual
2015	2

Output #5

Output Measure

- Number of new fruit tree varieties introduced.

Year	Actual
2015	2

Output #6

Output Measure

- Number of fruit tree propagation workshops conducted.

Year	Actual
2015	39

Output #7

Output Measure

- Number of pigs and piglets sold/traded.

Year	Actual
2015	18

Output #8

Output Measure

- Number of pesticide efficacy tests completed.

Year	Actual
2015	0

Output #9

Output Measure

- Number of Pesticide Applicators' Training workshops conducted.

Year	Actual
2015	3

Output #10

Output Measure

- Number of Tilapia released from breeding program.

Year	Actual
2015	155

Output #11

Output Measure

- Number of participants at aquaculture workshops conducted

Year	Actual
2015	10

Output #12

Output Measure

- Number of vegetable gardening workshops conducted.

Year	Actual
2015	11

Output #13

Output Measure

- Number of vegetable gardens established.

Year	Actual
2015	37

Output #14

Output Measure

- Pounds of Tilapia feed produced at ASCC feeds lab.

Year	Actual
2015	5575

Output #15

Output Measure

- Number of visitors to the Center for Sustainable Integrated Agriculture and Aquaculture

Year	Actual
2015	914

Output #16

Output Measure

- Number of food safety procedures, publications, brochures and educational materials distributed

Year	Actual
2015	2700

Output #17

Output Measure

- Number of participants attending food safety and sanitation workshops

Year	Actual
2015	1100

Output #18

Output Measure

- Number of farmers that participated in locally produced growing media workshops

Year	Actual
2015	0

Output #19

Output Measure

- Number of farmers participating in the small scale chicken farms program/project

Year	Actual
2015	16

Output #20

Output Measure

- Number of pest surveys completed with the Department of Agriculture

Year	Actual
2015	3

Output #21

Output Measure

- Number of isolates of Phytophthora colocasiae collected and tested for virulence.

Year	Actual
2015	0

Output #22

Output Measure

- Number of crosses of taro cultivars performed and number of hybrid seedlings evaluated.

Year	Actual
2015	850

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Number of farmers growing improved varieties of taro and sweet potatoes.
2	Number of clients targeting problems according to recommendations on plant clinic form.
3	Number of farmers/clients growing improved vegetable cultivars.
4	Number of people growing improved budded/grafted or airlayered fruit trees in their back yards.
5	Number of pig farmers upgrading their stock.
6	Number of reduced risk pesticides recommended for use.
7	Number of pesticide applicators trained and certified.
8	Number of farmers growing improved genetic stocks of tilapia.
9	Number of farmers making their own tilapia feeds.
10	Number of participants trained on Farm Safety
11	Number of farmers switching from use of peat or mined topsoil to locally produced soilless growing media.
12	Number of new aquaculture farmers
13	Number of visitors to the Center for Sustainable Integrated Agriculture and Aquaculture
14	Percent of participants who acquired knowledge and followed safe food handling guidelines
15	Number of pest species for which presence or absence in American Samoa was determined
16	Number of virulence groups identified among isolates of Phytophthora colocasiae and number of isolates in the most virulent group.
17	Number of high-yielding, disease-resistant, and good-tasting hybrid taro cultivars/lines released to farmers.

Outcome #1

1. Outcome Measures

Number of farmers growing improved varieties of taro and sweet potatoes.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2015	77

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
The taro leaf blight of the 1990s and the black leaf streak disease of bananas negatively impacted the production of taro and banana in American Samoa.

What has been done
The Agriculture Extension, Researchers, and tissue culture specialist continue to multiply the resistant and best taste varieties of traditional staples of American Samoa.

Results
In FY2015, the Agriculture Extension distributed 1502 improved taro setts and banana planting materials to 238 farmers. With the continued multiplication and distribution of improved varieties, farmers and producers now have a great diversity of disease-resistant products.

4. Associated Knowledge Areas

KA Code	Knowledge Area
202	Plant Genetic Resources
205	Plant Management Systems
212	Pathogens and Nematodes Affecting Plants

Outcome #2

1. Outcome Measures

Number of clients targeting problems according to recommendations on plant clinic form.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2015	12

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Accurate diagnosis is the first essential step in addressing plant health problems. Home gardeners, subsistence and commercial farmers, as well as extension agents sometimes require expert assistance to make a correct diagnosis. In addition, if a pest or disease problem is new to the area, expert assistance can help ensure a timely diagnosis and response and possibly prevent establishment and spread of a new pest or disease. Expert advice on management can help ensure that plant health problems are resolved in an efficient, environmentally sound manner.

What has been done
The ASCC-CNR Plant Clinic combines the expertise of ASCC-CNR's Entomology, Plant Pathology, and Horticulture labs to provide timely plant health diagnoses and recommendations to clients, including farmers, gardeners, and extension agents. As a member of the National Plant Diagnostic Network, the ASCC-CNR Plant Clinic has access to regional and national diagnostic expertise when required.

Results
The ASCC-CNR Plant Clinic continued to provide assistance to extension agents, the department of agriculture, farmers, and others through plant health diagnosis and management recommendations. In most cases recognizing the causes of their production problems helped clients deal with them effectively or to be better prepared to prevent or manage problems in future crops.

4. Associated Knowledge Areas

KA Code	Knowledge Area

102	Soil, Plant, Water, Nutrient Relationships
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Pathogens and Nematodes Affecting Plants
215	Biological Control of Pests Affecting Plants
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources

Outcome #3

1. Outcome Measures

Number of farmers/clients growing improved vegetable cultivars.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2015	238

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
There is a great need in American Samoa to increase consumption of fruits and vegetables to help address the issue of obesity and Non-communicable disease. Farmers continued to farm vegetable varieties that are beneficial for their health, providing food, and generating an income for the family.

What has been done
The Agriculture Extension outreach programs continued to provide seeds/seedlings to the community, schools and 4-H clubs, for vegetable gardening. The agents also conducted follow-up visits to farmers, schools, and producers. The Extension office continues to sell seeds of improved vegetable varieties at an affordable price to the public to encourage vegetable farming.

Results
The Agriculture Extension program sold more than 1000 vegetable seeds to 238 farmers. The Agriculture Extension staff identified improved cultivars that perform well in the topics and are

disease resistant.

4. Associated Knowledge Areas

KA Code	Knowledge Area
202	Plant Genetic Resources
205	Plant Management Systems
215	Biological Control of Pests Affecting Plants
604	Marketing and Distribution Practices

Outcome #4

1. Outcome Measures

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

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2015	181

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
There is a great need in American Samoa to increase consumption of fruits and vegetables to help address the issue of obesity and Non-communicable disease. Providing fruit tree planting materials for families and farmers to plant in the backyard can provide easy access to healthy foods.

What has been done
The Agriculture Extension Program continued to multiply and distribute fruit tree varieties to the community. The "Fruit for Life" greenhouse also serves as a teaching lab for the students and farmers in methods of asexual propagation to increase the availability of diverse varieties of fruits in American Samoa.

Results
76 residents and 105 students planted improved budded/grafted or air-layered fruit trees in their backyards. The EFNEP, FCS and 4-H conducted 39 workshops in nutrition, fruit trees

propagation, healthy meals preparation, and recipes to promote the consumption of vegetables and fruits.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
202	Plant Genetic Resources
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Pathogens and Nematodes Affecting Plants
215	Biological Control of Pests Affecting Plants
604	Marketing and Distribution Practices

Outcome #5

1. Outcome Measures

Number of pig farmers upgrading their stock.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2015	30

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
There is still a need to address the pig waste management problem, and to introduce biodiversity in the local pig gene pool to prevent inbreeding.

What has been done
The Programs continued to use the ASEPA funded piggery to demonstrate the four recommended waste management systems to farmers, students and the general public. Agents worked together with 5 local and federal partners in conducting seven (7) outreach workshops for piggery compliance.

Results

The ASCC-CNR piggery serves as a demonstration site for 47 farmers, 1200 students and public visitors (40). Thirty (30) farmers upgraded their stock by reducing inbreeding.

4. Associated Knowledge Areas

KA Code	Knowledge Area
306	Environmental Stress in Animals
315	Animal Welfare/Well-Being and Protection
403	Waste Disposal, Recycling, and Reuse

Outcome #6

1. Outcome Measures

Number of reduced risk pesticides recommended for use.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2015	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
American Samoa's farmers manage their traditional and non traditional cropping systems under environmental conditions and pest combinations that are unique. Pest control solutions that work elsewhere in the U.S. or its territories may or may not work for American Samoa's farmers. It is important to test technologies that offer effective, environmentally sound pest control to ensure that they work for American Samoa's farmers.

What has been done
This activity was not conducted in 2015 due to shortage of staff and shifting priorities.

Results
This activity was not completed in 2015 due to shortage of staff and changing priorities.

4. Associated Knowledge Areas

KA Code	Knowledge Area
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Pathogens and Nematodes Affecting Plants
215	Biological Control of Pests Affecting Plants
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources
903	Communication, Education, and Information Delivery

Outcome #7

1. Outcome Measures

Number of pesticide applicators trained and certified.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2015	42

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
The continued usage of illegal pesticides in American Samoa is still an issue. Importation and entry of pesticides into American Samoa are also challenging. Another issue is the improper way of handling pesticides before, during, and after usage.

What has been done
During FY 2015, ASCC-CNR conducted 3 Pesticide Applicator workshops.

Results
In FY 2015, Extension professionals trained and certified 42 participant. The EPA Pesticide officer was present to certify the participants. The certification allowed the participants to buy pesticides from the local Department of Agriculture and non-government vendors. As a result of the 3 pesticides workshops, farmers and users/applicators increased awareness of the Integrated Pest Management strategies and biological programs.

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Pathogens and Nematodes Affecting Plants
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources

Outcome #8

1. Outcome Measures

Number of farmers growing improved genetic stocks of tilapia.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2015	8

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Tilapia introductions in American Samoa have been few and far between. Inbreeding of existing stocks has been known to reduce growth rates and maximum sizes. This limits maximum farm yields and profits.

What has been done
The introduction of Genetically Improved Tilapia (GIFT) with formulated fish feed to the local farmers.

Results
GIFT grows faster and spawns earlier. The farmers are using this new breed of tilapia, and new farmers are encouraged to do the same.

4. Associated Knowledge Areas

KA Code	Knowledge Area

315	Animal Welfare/Well-Being and Protection
604	Marketing and Distribution Practices

Outcome #9

1. Outcome Measures

Number of farmers making their own tilapia feeds.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2015	8

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
The main issue is the high cost and availability of commercial feeds for the farmers.

What has been done
The Center for Sustainable Integrated Agriculture and Aquaculture (CSIAA) continues to maintain equipment for the production of fish feeds that is available to local fish farmers with no charge.

Results
Farmers continued to make use of feeds facilities to produce feed for the farm. In 2015, the CSIAA produced 5575 pounds of tilapia feeds.

4. Associated Knowledge Areas

KA Code	Knowledge Area
306	Environmental Stress in Animals
315	Animal Welfare/Well-Being and Protection
401	Structures, Facilities, and General Purpose Farm Supplies
604	Marketing and Distribution Practices

Outcome #10

1. Outcome Measures

Number of participants trained on Farm Safety

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2015	1100

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
In FY2015, questions have been posted on the quality of the produce sold to the public, especially the school lunch program. The Department of Health have cited or shut down farming business due to poor sanitation or illegal usage of pesticide. Local Produce have been rejected by the School Lunch Program because of poor quality due to lack of knowledge in better farming practices to ensure good quality produce.

What has been done
The Ag. Extension have conducted 4 Farm Safety Workshop and 3 Pesticide Training with Farmers, Schools and Partners. The FCS program conducted 12 food safety workshops.

Results
1100 participants acquired knowledge on Farm Safety through the workshops, activities, and training. The Agriculture Extension program assisted Farmers with issues concerning Farm Safety.

4. Associated Knowledge Areas

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Pathogens and Nematodes Affecting Plants
215	Biological Control of Pests Affecting Plants

315	Animal Welfare/Well-Being and Protection
403	Waste Disposal, Recycling, and Reuse
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources
903	Communication, Education, and Information Delivery

Outcome #11

1. Outcome Measures

Number of farmers switching from use of peat or mined topsoil to locally produced soilless growing media.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2015	3

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Use of imported peat based substrates in vegetable production is unsustainable. Locally available sustainable alternatives need to be evaluated and promoted.

What has been done
Worked with 4 farmers on the use of coconut husk, fishmeal, and compost substrates to replace imported peat. Research still ongoing with 4 workshops scheduled for 2016.

Results
Three farmers are utilizing locally produced coconut husk and compost substrates in their vegetable production operations.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
205	Plant Management Systems
403	Waste Disposal, Recycling, and Reuse

Outcome #12

1. Outcome Measures

Number of new aquaculture farmers

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2015	4

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
There is little, available, arable land in American Samoa. Much of the available land is compromised of poor soils that are not suitable for gardening. With the slow economy and high cost-of-living, people are looking for ways to improve food security and financial stability.

What has been done
Conducted training to new farmers which highlighted the benefits and practice of Aquaponics. The participants improved their knowledge of Aquaponics, including assembly, fish care, and marketability of Aquaponic products.

Results
In FY2015, 4 farmers were ale to set up their aquaponics and using the Center for Sustainable Integrated Agriculture and Aquaculture (CSIAA) for the production of fish feeds for their farms.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
205	Plant Management Systems
315	Animal Welfare/Well-Being and Protection

Outcome #13

1. Outcome Measures

Number of visitors to the Center for Sustainable Integrated Agriculture and Aquaculture

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2015	914

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Food Security is an issue in American Samoa with 95% of the food supplies are imported. Tilapia introductions in American Samoa have been few and far between.

What has been done
The program conducted a workshop and offer outreach services to highlight the benefits and practice of aquaponics.

Results
About 90% of the visitors, participants and farmers improved their knowledge of aquaponics,including assembly fish care, and marketability of products.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
315	Animal Welfare/Well-Being and Protection
401	Structures, Facilities, and General Purpose Farm Supplies
403	Waste Disposal, Recycling, and Reuse
604	Marketing and Distribution Practices

Outcome #14

1. Outcome Measures

Percent of participants who acquired knowledge and followed safe food handling guidelines

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2015	90

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Obesity, overweight, poor nutrition, and food safety issues continued to be major problems for both adults and youth in American Samoa. There is a need for more nutritional, educational, and vegetable garden workshops to educate the community about healthy lifestyles.

What has been done
The FCS program conducted 24 workshops in Nutrition and Food Safety for 300 plus participants per month. The Agriculture Extension staff conducted 11 workshops on vegetable gardening in the schools and three (3) Pesticides training workshops.

Results
About 90% of the participants in the workshops prepared and consumed healthy meals/food. Moreover, 90% of the participants acquired knowledge and followed safe food handling guidelines.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

Outcome #15

1. Outcome Measures

Number of pest species for which presence or absence in American Samoa was determined

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2015	6

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
American Samoa's managed and unmanaged ecosystems are highly susceptible to disruptions by accidentally introduced exotic plant pests. Exotic pest detection surveys may allow for early detection of such pests so that they can be eradicated before they spread and become established in the territory.

What has been done
ASCC ACNR and the American Samoa Department of Agriculture work together to implement exotic pest detection surveys under the USDA APHIS Cooperative Agricultural Pests Survey program. The partners maintain a trapping network for exotic fruit flies to detect such threats as the Oriental fruit fly, melon fly, and Mediterranean fruit fly which are present in Hawaii, and the Tongan fruit fly present in nearby Tonga. Bait stations are used to monitor for exotic invasive ant species such as the imported fire ant, present in the southern U.S., and the little fire ant which is present in Hawaii and some other Pacific islands. In addition, citrus and related species are surveyed for evidence of harmful citrus greening disease. (The major citrus greening vector, the exotic Asian citrus psyllid, is now widespread in American Samoa.)

Results
The fruit fly trapping network did not detect any non-native fruit flies among the 14,909 flies trapped and identified during the reporting period, and citrus greening disease was also not detected at any of the 87 sites sampled in that survey. The exotic ant survey did not find imported fire ant or little fire ant or any other species new to the territory in any of the 3,270 bait stations placed at 78 locations considered at high risk for accidental introduction of exotic ants. All three surveys were conducted on all five inhabited islands of American Samoa. The establishment of these ongoing pest surveys provides American Samoa?s residents, farmers, and decision-makers up-to-date information on American Samoa?s status with respect to these worldwide plant pests

and diseases. The surveys provide not only the chance for early detection and eradication of any new pests, but also the data needed to support import risk analysis and other biosecurity decision-making.

4. Associated Knowledge Areas

KA Code	Knowledge Area
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Pathogens and Nematodes Affecting Plants

Outcome #16

1. Outcome Measures

Number of virulence groups identified among isolates of Phytophthora colocasiae and number of isolates in the most virulent group.

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2015	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
In order to avoid the resurgence of the taro leaf blight epidemics that destroyed the entire taro production of American Samoa in the early 1990s, surveys of the different isolates of the pathogen, Phytophthora colocasiae, will be conducted so as to detect any changes in the virulence of the isolates as soon as they appear.

What has been done
This activity was not conducted in 2015 due to changing priorities and limited resources.

Results
This activity was not conducted in 2015 due to changing priorities and limited resources.

4. Associated Knowledge Areas

KA Code	Knowledge Area
212	Pathogens and Nematodes Affecting Plants

Outcome #17

1. Outcome Measures

Number of high-yielding, disease-resistant, and good-tasting hybrid taro cultivars/lines released to farmers.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2015	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Due to changes in climate, constantly evolving diseases and introduction of new pests and diseases, it is important to broaden the genetic base of taro to allow adaptability.

What has been done
Parent material from several areas in the Pacific and Asia have been collected and crossed to produce new taro varieties. Approximately 850 newly developed varieties have been evaluated for resistance to taro leaf blight, yield and eating quality. This project is still ongoing.

Results
Twelve of the new varieties have been identified to be used as parent material in the next round of crosses.

4. Associated Knowledge Areas

KA Code	Knowledge Area
202	Plant Genetic Resources
212	Pathogens and Nematodes Affecting Plants

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Other (Lack of staff; procurement process)

Brief Explanation

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Based on the evaluation, feedback form, and focus groups, ASCC-ACNR programs are doing a fair job in serving the clients and community needs. There is still a need to do more outreach for the planned programs. Fruit trees propagation workshops received favorable comments. However, the need for more new varieties was highly recommended by the clients. The stakeholders agreed that the ASCC-ACNR program is doing good job in improving varieties of traditional crops, conducting vegetable gardening workshops and demonstrations, and offering of the Pesticide Safety Education Program. The Progressive Agriculture Safety Days and the Piggery Waste Management workshops also received positive evaluation from the participants.

Key Items of Evaluation

V(A). Planned Program (Summary)

Program # 3

1. Name of the Planned Program

Health and Wellness

☑ Reporting on this Program

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
703	Nutrition Education and Behavior	50%		40%	
721	Insects and Other Pests Affecting Humans	15%		20%	
722	Zoonotic Diseases and Parasites Affecting Humans	15%		0%	
724	Healthy Lifestyle	20%		40%	
	Total	100%		100%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2015	Extension		Research	
	1862	1890	1862	1890
Plan	4.0	0.0	3.0	0.0
Actual Paid	0.0	0.0	0.0	0.0
Actual Volunteer	0.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	**1890 Extension**	**Hatch**	**Evans-Allen**
0	0	0	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
0	0	0	0
1862 All Other	**1890 All Other**	**1862 All Other**	**1890 All Other**
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

We continued research on the biology and control of disease-carrying mosquitoes and communicated results via research reports, brochures, seminars, TV, and individual contacts with other agencies. Health communications research projects in 2015 focused on two healthy living interventions: assessing

We continued research on the biology and control of disease-carrying mosquitoes and communicated results via research reports, brochures, seminars, TV, and individual contacts with other agencies. Health communications research projects in 2015 focused on two healthy living interventions: assessing impact and reach of local broadcast of the HBO documentary series "The Weight of the Nation" (TWOTN) and use of locally-designed healthy behavior promotion placemats for American Samoan households. The TWOTN project measured the impact of airing this American mass media campaign locally while also gathering information on residents' knowledge and use of media. The results will assist the development of audience segmentation to inform strategic design of future health communication interventions in American Samoa. The second intervention combined distribution of the placemats with a workshop and a short film promoting healthy behaviors to reduce overweight and obesity and associated chronic diseases. Rigorous assessment of the efficacy of this intervention has provided critical insights to help shape ongoing healthy living promotion efforts

The Extension agents will continue to promote healthy living through outreach workshops and program activities in the schools and communities. The 4-H Program conducted workshops with school agencies,

community clubs, and after-school program in physical and healthy activities to educate youth in health and wellness. The Forestry conducted workshops on how Forest Health relates to healthy living. The Agriculture program, EFNEP and the Family Consumer Program continue to provide workshops and demonstrations on healthy living through farming and healthy eating.

2. Brief description of the target audience

All residents of American Samoa

3. How was eXtension used?

eXtension was not used in this program

V(E). Planned Program (Outputs)

1. Standard output measures

2015	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	2834	7800	747	4800

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year:	2015
Actual:	0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2015	Extension	Research	Total
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of Healthy Recipes Food Demonstration Workshops

Year	Actual
2015	63

Output #2

Output Measure

- Number of Exercise and Physical Activity Workshops

Year	Actual
2015	48

Output #3

Output Measure

- Number of research projects completed

Year	Actual
2015	53

Output #4

Output Measure

- Estimated number of persons exposed to ASCC CNR generated mosquito-borne disease prevention messages

Year	Actual
2015	29000

Output #5

Output Measure

- Number of households who watched local broadcast of "The Weight of the Nation" documentary series

Year	Actual
2015	2300

Output #6

Output Measure

- Number of child caregivers and early childhood educators who received healthy behavior promotion placemats and who participated in placemat workshops

Year	Actual
2015	60

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Number of participants eating ≥ 1 additional serving of fruits and/or vegetables a day
2	Number of participants that prepared healthier foods utilizing locally grown & harvested food
3	Number of participants that increased participation in physical activities and exercises
4	Number of cases of mosquito-borne illnesses at local hospital
5	Number of people who reported adopting healthy change in daily behavior and/or increasing knowledge of health risks of obesity after watching "The Weight of the Nation" program broadcast on local TV.
6	Number of caregivers, children, and early childhood educators who adopted the six target healthy behaviors after using the healthy behavior promotion placemat

Outcome #1

1. Outcome Measures

Number of participants eating ≥ 1 additional serving of fruits and/or vegetables a day

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2015	1937

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Obesity, overweight, poor nutrition, Non-communicable disease, and food safety continued to be major issues for both adults and youth in American Samoa. There is a continued need for more nutrition, vegetable garden and healthy living workshops to educate the community about healthier lifestyles.

What has been done
The FCS, EFNEP, Agriculture, Forestry and 4-H Programs conducted 75 workshops in nutrition, vegetable garden and healthy living in the schools and the community. Given the prevalence of Obesity and Nutrition related problems in American Samoa, Nutrition Education is clearly "Key" and definitely a top priority in changing cultural attitudes, norm and practices related to food and nutrition.

Results
About 65% of the participants in the workshops acquired knowledge, developed skills in preparing nutritious, balanced, and safe meals; vegetable gardening; food safety; physical activity and exercise; and wellness. Participants also reported consumption of more than one serving of fruits and vegetables a day.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle

Outcome #2

1. Outcome Measures

Number of participants that prepared healthier foods utilizing locally grown & harvested food

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2015	1440

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Obesity, overweight, poor nutrition, Non-communicable disease, and food safety continued to be a major issue for both youth and adults in American Samoa. There is a continued need for more nutrition, vegetable garden, and healthy living workshops to educate the community for healthy living.

What has been done
The FCS program conducted 63 workshops in Nutrition and Food Safety for 300 plus participants every month. The Ag. Extension conducted 4 vegetable gardening and 14 Farm Safety Workshops in the schools and community.
The FCS program conducted 63 workshops in Nutrition and Food Safety for 300 plus participants every month. The Agriculture Extension Program conducted 4 vegetable gardening and 14 Farm Safety Workshops in the schools and community.

Results
1440 workshop participants prepared, learned, and consumed healthy food through workshops and activities conducted by the FCS, EFNEP and Agriculture Extension Program.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle

Outcome #3

1. Outcome Measures

Number of participants that increased participation in physical activities and exercises

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2015	135

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Obesity, overweight, poor nutrition, Non-communicable disease, and food safety continued to be major issues for both youth and adults in American Samoa. There is a continued need for more nutrition, vegetable garden, and healthy living workshops to educate the community about healthy living.

What has been done
90% of the outreach programs include an activity or exercise component. FCS program conducted 12 workshops related to physical activity and exercise. An average of 25 participants exercised daily at the Wellness Center.

Results
More than 90% of the participants, who received nutrition and exercise plans from the Wellness Center reported changes in their health due to exercise and diet.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle

Outcome #4

1. Outcome Measures

Number of cases of mosquito-borne illnesses at local hospital

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2015	462

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Mosquitoes in American Samoa are known to vector several important human pathogens, including lymphatic filariasis, dengue, and other arboviruses. Research on these mosquitoes in the local context is essential to identifying ways to reduce their numbers and prevent transmission of these diseases. The results of this research must be made available to local decision-makers and provided to the general public to guide and promote effective disease prevention efforts.

What has been done
New research conducted during the reporting period included field evaluations of two new gravid traps and three infusion lures targeting local Aedes vector species. In addition, results of previous research on these mosquitoes was provided to the local Department of Health (DoH) to support their messaging via TV, radio, and newspaper to the public on ways to reduce vector populations and protect against their bites. The information was also presented at the 28th Pacific Islands Environment Conference and the 5th Annual Samoa-American Samoa Bilateral Health Summit. The results of vector breeding site surveys conducted on the grounds of local schools was presented on TV to help guide community efforts to protect children against these day-biting mosquitoes, and approximately 20 DoH environmental health officers were trained in vector source reduction and proper use of larvicides.

Results
During the reporting period American Samoa saw the tail end of its first chikungunya outbreak and the peak and subsequent decline of an ensuing dengue outbreak. While it is difficult to quantify its impact on the course of these two outbreaks, the messages provided to the public by DoH based on information from ASCC-CNR research played an important role in the response at the family, village, and territory-wide levels.

4. Associated Knowledge Areas

KA Code	Knowledge Area
721	Insects and Other Pests Affecting Humans
722	Zoonotic Diseases and Parasites Affecting Humans

Outcome #5

1. Outcome Measures

Number of people who reported adopting healthy change in daily behavior and/or increasing knowledge of health risks of obesity after watching "The Weight of the Nation" program broadcast on local TV.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2015	2300

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
According to the World Health Organization?s 2004 STEP survey, over 93.5 percent of the local population is either obese or overweight and Type 2 diabetes stands at about 44%, two statistics that put American Samoa at the top of the list of places having this health problem. Obesity and associated non-communicable diseases are major health concerns in American Samoa, causing reduced life expectancy, reduced quality of life, a straining health care system, and lower economic productivity. Unfortunately, prevalence of obesity, Type 2 diabetes and related metabolic syndromes continue to rise, including among the youth.

What has been done
In 2015, KVZK-TV with agreement from HBO and through initiative and coordination of CNR?s Health Communications Program broadcast five of the ?The Weight of the Nation? documentary series programs over a four-day period. Following the broadcast a questionnaire based survey of a random representative sample of 256 American Samoan households was conducted using face-to-face interviews to measure the reach and effect of the broadcast and to collect baseline data on knowledge of the health consequences of obesity, demographics, lifestyle variables, and communication channels.

Results

Based on our survey, virtually all the households that viewed the broadcast in 2015 intended and made healthy behavioral changes in their daily lives after watching any part of the program, most frequently by eating more vegetables and salads on a daily basis. The results also show that the vast majority of adult American Samoans (whether they viewed TWOTN or not) are aware of the health risks of obesity. TWOTN was produced in English and did not target the local audience. Our survey results illuminate the need for increased locally produced, effective mass media campaigns in Samoan or bi-lingual. The survey also provided critical information about some of the elements that should be in such a campaign.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle

Outcome #6

1. Outcome Measures

Number of caregivers, children, and early childhood educators who adopted the six target healthy behaviors after using the healthy behavior promotion placemat

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2015	60

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
The rising prevalence of childhood obesity in American Samoa is a major health concern. The problem is strongly related to frequent consumption of soda or other sugary drinks instead of water, excess screen time at the expense of physical activity and sleep, and consumption nutritionally poor, calorie-dense, processed foods rather than fresh vegetables and fruits. Overweight or obese children are likely to become obese adults and to suffer chronic illnesses at an earlier age.

What has been done
Healthy behavior promotion placemats were produced based on inputs from a community focus group. The placemats were distributed to caregivers in households with small children in the

context of a workshop that demonstrated their use. Based on the results, changes were made, including the production of a film showing the use of the placemats in a household with small children. Placemats were then distributed in five more workshops, and assessments are currently underway.

Results

No final results yet, but so far household caregivers who have been interviewed report that they are using the placemat and that it is helping their households to understand and to practice the six obesity prevention target behaviors. In 2016 the remaining placemats will be distributed and the assessments will be completed to understand and evaluate the usefulness of this intervention tool and gain insights for further work with this kind of intervention.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Other (Lack of staff, procurement process)

Brief Explanation

V(I). Planned Program (Evaluation Studies)

Evaluation Results

According to the surveys and focus groups, about 90% of the participants indicated that they acquired knowledge, developed skills, and adopted the recommended practices as a result of participating in programs provided by ASCC-ACNR.

Key Items of Evaluation

V(A). Planned Program (Summary)

Program # 4

1. Name of the Planned Program

Ecosystem

☑ Reporting on this Program

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
112	Watershed Protection and Management	10%		0%	
123	Management and Sustainability of Forest Resources	10%		0%	
124	Urban Forestry	30%		0%	
125	Agroforestry	30%		0%	
132	Weather and Climate	10%		0%	
136	Conservation of Biological Diversity	10%		0%	
	Total	100%		0%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2015	Extension		Research	
	1862	1890	1862	1890
Plan	3.5	0.0	1.2	0.0
Actual Paid	0.0	0.0	0.0	0.0
Actual Volunteer	0.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	**1890 Extension**	**Hatch**	**Evans-Allen**
0	0	0	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
0	0	0	0
1862 All Other	**1890 All Other**	**1862 All Other**	**1890 All Other**
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

ASCC Forestry Program conducted site visits on private/communal/public land, met with landowners, and prepared multi-year stewardship plans (including proper urban tree care) for each site. The Extension personnel worked together for site visits, meeting with stakeholders, and completed a comprehensive management plan specific for each site. ASCC held community outreach events (e.g., in schools and villages) to teach church and village youth about the importance of ecosystem health, urban trees, etc. Forestry Extension personnel propagated and distributed fruit trees (native) seedlings for agroforestry plots and the general public. Extension personnel propagated and cared for the plants and promoted their use for land owners.
ASCC Forestry Program conducted site visits on private/communal land with invasive species concerns and wrote up management plans for specific sites and for specific invasive plant species. The Extension personnel disseminated knowledge about the proper techniques for effectively managing invasive plant species to the landowners.

2. Brief description of the target audience

Policymakers in the Executive and Legislative branches of local government.
Students
Farmers.
Landowners
Forestry clients
General public

3. How was eXtension used?

eXtension was not used in this program

V(E). Planned Program (Outputs)

1. Standard output measures

2015	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	1300	5000	2600	10000

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year:	2015
Actual:	0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2015	Extension	Research	Total
Actual	1	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of improved watersheds and coastal areas.

Year	Actual
2015	2

Output #2

Output Measure

- Number of landowners with forest stewardship plans.

Year	Actual
2015	7

Output #3

Output Measure

- Number of youth educated about the importance of ecosystem health.

Year	Actual
2015	850

Output #4

Output Measure

- Number of fruit trees propagated and distributed through the Tree of Life nursery.

Year	Actual
2015	570

Output #5

Output Measure

- Number of sites with invasive plant management plans.

Year	Actual
2015	3

Output #6

Output Measure

- Number of water samples analyzed for bacterial contamination and Total Dissolved Solids.

Year	Actual
2015	0

Output #7

Output Measure

- Number of schoolchildren informed about watershed protection.

Year	Actual
2015	1750

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Improved watersheds and coastal areas
2	Forest Stewardship Plans
3	Youth education workshops
4	Propagation and distribution of fruit trees
5	Invasive plant management plans
6	Coliform and E. coli tests and Electrical Conductivity analyzes (for TDS)
7	Visits to public and private elementary and middle schools

Outcome #1

1. Outcome Measures

Improved watersheds and coastal areas

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2015	3

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Stream littering such as pig wastes, trash, sedimentation, invasive species, soil erosion, and human activities are major threats and challenges to fresh water quality in American Samoa. These threats also affected fresh water fish, mangroves, marine life and coral reefs. American Samoa wetlands, including coastal mangroves and fresh water marshes, are threatened by filling for development and by sedimentation and nutrient overload from agroforestry.

What has been done
Conducted 19 workshops on conservation, climate change, and land management planning of how to be good stewardess. The programs also provided technical assistance, and building partnerships with villages, landowners, and environmental government agencies.

Results
Improved 3 watersheds and coastal areas. Forestry program established partnership with the villagers. Landowners conducted three (3) watershed monthly cleanups. Partnership and collaboration with 11 local and federal environmental agencies (DMWR, DOC, ASEPA, NMSAS, NPS, CRAG, DYWA, NRCS, ASSWCD, NOAA, DPS) to provide outreach services for the community.

4. Associated Knowledge Areas

KA Code	Knowledge Area
112	Watershed Protection and Management
123	Management and Sustainability of Forest Resources

136 Conservation of Biological Diversity

Outcome #2

1. Outcome Measures

Forest Stewardship Plans

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2015	7

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
American Samoa continues to depend on the forest to provide food and sustainable resources. With climate change issues as sea level rises and rising temperature in the ocean and scorching heat, the island of American Samoa continues to see the importance of being good stewards toward lands by restoring their native forests and reforesting barren lands. Invasive plant species have threatened and invaded the forests which is affecting the native flora and fauna and posing a threat to the habitats of native plants and animals.

What has been done
Forestry program provided technical assistance and also conducted workshops and activities with landowners to maintain good care of their forestland and identifying invasive species. Conducted invasive species (Merremia peltata) control work on 1.5 acre at Auto village.

Results
Landowners and farmers are working cooperatively with the program in managing their forestland and related issues. Forestry program developed new management plans for seven (7) Landowners. Conducted invasive species (Merremia peltata) control work on 1.5 acre at Auto village. Forest Stewardship staff continues to work closely with GIS specialist in obtaining and conducting two (2) surveys of forest landowners.

4. Associated Knowledge Areas

KA Code	Knowledge Area
112	Watershed Protection and Management
123	Management and Sustainability of Forest Resources
124	Urban Forestry
125	Agroforestry
132	Weather and Climate
136	Conservation of Biological Diversity

Outcome #3

1. Outcome Measures

Youth education workshops

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2015	34

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
People are constantly littering the streams and watersheds, damaging watershed and fresh water quality. Forest areas have been clear out by human activities and new developments are building on forestland area. Exotic plants are growing rapidly replacing native trees. In addition, rising of sea level and scorching heat continues to be a life threatening to American Samoa. Education workshops throughout the community are extremely important to inform and remind people of how important our natural resources and surrounding environment to our daily lives as they were to our ancestors thousands of years.

It important to build and develop the youth knowledge, interests ,and their mindsets at an early age on why trees and natural resources are important to daily lives and the future.

What has been done
Forestry program conducted 19 workshops (850 participants) on conservation education, climate

change, and land management activities with landowners and conducted 27 schools tours (1750 participants). Conducted 19 conservation education outreaches to eight (8) schools (600 participants), and eleven (11) villages (250 participants), in order to support and strengthen the community?s management planning and implementation of costal stabilization, traditional forestry practices, sustainable use of natural resources, and maintain a healthy rainforest.

Results

Forestry Program established one (1) new greenhouse nursery at Nuu?uli Poly Tech High school. Schools were provided with more than 1000 native coastal plants, beautification plants, and medicinal plants. Staff continues to work with the schools to maintain a healthy greenhouse nursery. 850 young people participated in 19 youth education workshops.

4. Associated Knowledge Areas

KA Code	Knowledge Area
112	Watershed Protection and Management
123	Management and Sustainability of Forest Resources
124	Urban Forestry
125	Agroforestry
132	Weather and Climate
136	Conservation of Biological Diversity

Outcome #4

1. Outcome Measures

Propagation and distribution of fruit trees

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2015	570

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

There is a need in American Samoa to increase consumption of fruits to address the many non-communicable diseases. Parents continued to be concerned about children not consuming enough fruits and vegetables.

What has been done
The Agriculture Extension Program continued to multiply and distribute recommended varieties of fruit trees to farmers, homemakers, students, and interested residents. The "Fruits of Life" greenhouse is used for multiplication of fruit-tree planting materials, and a teaching lab for Agricultural students and farmers on methods of asexual propagation.

Results
In 2015, the staff propagated 570 fruit tree seeds and distributed 437 seedlings. 181 people planted budded/grafted fruit trees in their backyard.

4. Associated Knowledge Areas

KA Code	Knowledge Area
112	Watershed Protection and Management
123	Management and Sustainability of Forest Resources
124	Urban Forestry
125	Agroforestry
132	Weather and Climate
136	Conservation of Biological Diversity

Outcome #5

1. Outcome Measures

Invasive plant management plans

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2015	1

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

In 2012, a State-wide Assessment and Strategies for Forest Resources (SWARS) identified the rapid growth and spread of exotic invasive plants in American Samoa rainforest. Invasive species are destroying and replacing native plants, and it's one of the greatest threats to American Samoa's rainforest.

What has been done
The Cooperative Forest Health Protection and Invasive Plants Management Project focused on one infested invasive species site. Staff collected data, applied herbicide, and mechanically removed unwanted plants. The field agents continue to conduct maintenance work at the infected site.

Results
Forestry program staff and GIS Specialist completed one management plan and controlled 1.5 acre infested with Merremia peltata at Auto site. Replanted Auto site with 47 Theobroma cacao (cocoa) seedlings. Completed 1 GIS map.

4. Associated Knowledge Areas

KA Code	Knowledge Area
112	Watershed Protection and Management
123	Management and Sustainability of Forest Resources
124	Urban Forestry
125	Agroforestry
132	Weather and Climate
136	Conservation of Biological Diversity

Outcome #6

1. Outcome Measures

Coliform and E. coli tests and Electrical Conductivity analyzes (for TDS)

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2015	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done
This activity was not completed due to retirement and reassignment of key staff

Results
This activity was not completed due to retirement and reassignment of key staff

4. Associated Knowledge Areas

KA Code	Knowledge Area
112	Watershed Protection and Management
123	Management and Sustainability of Forest Resources
124	Urban Forestry
125	Agroforestry
132	Weather and Climate
136	Conservation of Biological Diversity

Outcome #7

1. Outcome Measures

Visits to public and private elementary and middle schools

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2015	8

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
People are constantly littering the streams and watersheds, damaging watershed and fresh water quality. Forest areas have been clear out by human activities and new developments are building

on forestland area. Exotic plants are growing rapidly replacing native trees. In addition, rising of sea level and scorching heat continues to be a life threatening to American Samoa. Education workshops throughout the community is extremely important to inform and remind people of how important our natural resources and surrounding environment to our daily lives as they were to our ancestors thousands of years.

It important to build and develop the youth knowledge, interests, and their mindsets at an early age on why trees and natural resources are important to daily lives and the future.

What has been done

Forestry program conducted 19 workshops (850 participants) on conservation education, climate change, and land management activities with landowners and 1750 students from 27 schools. Educated the youth on how to be good landowners in the future and take full responsibility for their actions. Conducted 12 outreach workshops to schools to educate students on Forest Health, Forest Stewardship, and Urban Forestry. Also conducted tree planting activities at 12 schools.

Results

Forestry Program established one (1) new greenhouse nursery at Nu?uuli Poly Tech High School. Distributed more than 1000 native coastal plants, beautification plants, and medicinal plants to 8 schools. Conducted 19 forestry workshops to 12 schools (850 participants) and 27 tours for 1750 students.

4. Associated Knowledge Areas

KA Code	Knowledge Area
112	Watershed Protection and Management
123	Management and Sustainability of Forest Resources
124	Urban Forestry
125	Agroforestry
132	Weather and Climate
136	Conservation of Biological Diversity

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Other (Staff and/or funding changes,)

Brief Explanation

V(I). Planned Program (Evaluation Studies)

Evaluation Results

In FY 2015, the Forestry program conducted workshops and activities that directly reached 2600 residents of American Samoa. The forestry staff together with participants planted trees for climate change and energy sustainability. Based on the feedback, clients are satisfied but there is still a need to understand more about climate change and sustainable energy. Program evaluation indicated the following:
• Program staff should be more visible in the community to assist and encourage landowners to plant more native trees to address climate change.
• Continue to work with village councils to manage watersheds and coastal areas.
• Extend the program to Aunu'u and Manu'a
• Hire more professional staff.

Key Items of Evaluation

VI. National Outcomes and Indicators

1. NIFA Selected Outcomes and Indicators

Childhood Obesity (Outcome 1, Indicator 1.c)	
0	Number of children and youth who reported eating more of healthy foods.
Climate Change (Outcome 1, Indicator 4)	
0	Number of new crop varieties, animal breeds, and genotypes whit climate adaptive traits.
Global Food Security and Hunger (Outcome 1, Indicator 4.a)	
0	Number of participants adopting best practices and technologies resulting in increased yield, reduced inputs, increased efficiency, increased economic return, and/or conservation of resources.
Global Food Security and Hunger (Outcome 2, Indicator 1)	
0	Number of new or improved innovations developed for food enterprises.
Food Safety (Outcome 1, Indicator 1)	
0	Number of viable technologies developed or modified for the detection and
Sustainable Energy (Outcome 3, Indicator 2)	
0	Number of farmers who adopted a dedicated bioenergy crop
Sustainable Energy (Outcome 3, Indicator 4)	
0	Tons of feedstocks delivered.