

# 2012 University of the Virgin Islands Extension Annual Report of Accomplishments and Results

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## I. Report Overview

### 1. Executive Summary

#### Executive Summary for your Fiscal Year 2012 Report

The United States Virgin Islands like most states and territories have been facing a lot of economic challenges, coupled with high employment rates, which currently stands at thirteen point three percent (13.3%) - seventeen percent (17%) unemployment on St. Croix and nine point nine percent (9.9%) in the St. Thomas/St. John district. The Virgin Islands Cooperative Extension Service, thus, tailored most of its programs to focus on reemployment by teaching and training its clientele to acquire skills for success in the employment arena.

The Virgin Islands Cooperative Extension Services accomplished most of the objectives and goals that were outlined in the seventeen (17) programs that were developed as a result of the five year plan of work. The trainings, workshops, seminars, demonstrations, short courses and educational activities accomplished this year positively impacted and changed lives of many Virgin Islanders. A total of twenty one thousand three hundred eighty two (21,382) clientele were engaged by extension staff through trainings, short courses, workshops and demonstrations. This comprised of over twenty percent (20%) of the total population in the United States Virgin Islands, according to the 2010 population census. Also, a total of six hundred and thirty-four (634) certificate of completion were awarded to clientele that successfully completed our trainings and six and eight weeks short courses. This summary is group under the five national priorities of the National Institute of Food and Agriculture (NIFA).

#### Goal 1: Global Food Security and Hunger

Programs under this initiative support agriculture production and improvement in the capacity to meet growing food demands in the Virgin Islands and the fight against hunger by addressing food security issues.

The Small Livestock and Beef Production Program conducted workshops and training sessions in order to familiarize producers with what is available to them for treatment and techniques to diagnose parasite issues. Farmers were also trained in detection methods for internal parasites, so that they can treat animals that needed treatment. Training sessions/workshops were conducted for the livestock community to educate them as to the proper use and methods of identification available. This initiative saved producers' money by assisting them to identify their animals and have a successful breeding program. CES in collaboration with the Virgin Islands Department of Agriculture continues to promote local meat products through 'Fresh from the Farm'. This program continues to assist farmers by increasing their income and creating a high demand for locally produce meat products. Pasture improvement continues to save farmers money, by producing enough forage for producers to feed their animals. Producers continue to participate in pasture improvement and training workshops. Two producers established new pastures and two others receded and improved their old pastures. These practices increased animal productivity, saved producers money on feed costs and increased livestock farm income by five percent (5%), according to a survey, conducted by CES.

The Sustainable Agriculture Program conducted short courses, workshops and demonstrations to

inform producers about sustainable production practices, including composting, drip irrigation and soil preparation. A new grant program, Beginning Farmers and Ranchers Program, trained farmers in sustainable practices in crop and vegetable production, and livestock production and management in an effort to recruit and educate younger Virgin Islanders into food production and improve the knowledge capacity of existing farmers. CES also sponsored the 8th annual Agriculture Progressive Safety Day, in conjunction with the 4-H Summer Program on St. Croix and St. Thomas. One hundred eighty (180) young people and thirty (30) adults increased their awareness of specific safety practices and procedures while participating in the Progressive Agriculture Safety Day. They received literature and educational resources to enhance their learning experience. CES partnered with the Virgin Islands Department of Agriculture, the Small Business Development Center and the Internal Revenue Bureau as they conducted two seminars; one on recordkeeping and the other on filling income tax returns including Schedule F on the IRS form. Ninety-five percent of the farmers that participated in the seminars said that they increased their knowledge of filing their income taxes, introduction to computers, the fundamentals of rearing livestock producing selected vegetable crops and incorporating technology including social media into their farming practices.

The Urban Forestry Program continues to assist local residents in the proper maintenance and use of trees in public places. The annual Woodworkers Exposition was held in St. Croix to showcase the economic benefits of recycling trees, and parts of trees that would have otherwise gone into landfills. A total of four hundred (400) residents became aware of the economic benefits of turning felled trees into potential income generating products. In a survey conducted with the persons who attended the Exposition, ninety percent (90%) of them reported that they are now more aware of the economic and environmental benefits of trees. The Woodworkers Exposition yielded an average of two thousand seven hundred (\$2,700) per participant and a total of five new members who participated for the first time made an average of two thousand dollars (\$2,000). Several radio talk shows were aired to get information across to residents whose trees had been damaged by storms. Technical advice was also provided to residents through onsite visits and via telephone. The Urban Forestry Program established partnerships with public and private agencies, community leaders, and groups to provide education, information, and technical advice to the general population. This was achieved through the use of publications, seminars, mass media, field days and exhibits as well as personal contacts. Educational classes, workshops, and demonstrations were held to educate and inform the public about tree identification, tree pruning, tree care and urban forest management and economic opportunities viable through using and or recycling forest resources.

The Urban Gardening Program conducted classes, workshops, and demonstrations to educate and inform the public about how to create gardens, proper garden management, and low cost efficient technologies practices and principles in gardening. Two important accomplishments of this program during this fiscal year are the collaboration with the Department of Personnel, CIGNA, and CES. CES conducted a series of six-week workshops on the basic principles of creating and maintaining a home garden. A total of sixty (60) people increased their level of knowledge of the benefits of creating a garden for themselves and their children. A survey conducted of the participants, revealed that 96% experienced a savings of \$275 in their monthly household grocery bill as a result of producing some of their vegetables in their home garden. Another program that impacted the community was fifty (50) fathers and their sons gardening together. This program made the fathers more aware of how engaging a gardening project can help to build strong emotional and social ties between them and their children. Ninety-eight percent (98%) became aware of the benefits of gardening and increased their knowledge of how to start and maintain a vegetable garden. All these fathers reported the building of a strong relationship with their sons.

## Goal 2: Climate Change

Projects under this goal generate knowledge to develop an agriculture system that maintains high productivity in the face of climate changes. These programs assist the producers to plan for and make

decisions to adapt to changing environments and sustain economic vitality. The Natural Resources and Environmental Management program facilitated the interaction of community groups and leaders to address resource conservation and management issues, pollution prevention, and the establishment of an eco-tourism industry based on the incorporation of the Virgin Islands natural and cultural history and low impact tourism concepts. The St. Croix Environmental Repository, established with funding from EPA and housed at the Cooperative Extension Service, continues to expand its holdings and increase its use by the local environmental community.

The Water Quality Program continues to focus on transmitting information on water quality protection and household cistern water management since there are no rivers in the V.I and everyone depend on cistern water. Workshops and demonstrations on the use of toxic household products were given to different housing communities, schools, corporate groups, and the general public. Cistern care was also promoted during those presentations and during individual consultations. CES partnered with the VI Department of Planning and Natural Resources and the VI Waste Management Authority in conducting Onsite Wastewater Septic Design training on the island of St. Thomas for a total of thirty-one (31) septic system installers/service providers. This training was also video-conference to the CES office on St. Croix. CES continues to promote the implementation of best management practices to protect water quality at coastal public parks, hotels, and large subdivisions with intensive coastal and offshore resources.

#### Goal 4: Childhood Obesity

Programs in this area ensure that nutritious foods are affordable and available and provide guidance so that individuals and families are able to make informed, science-based decisions about their health and wellbeing.

The nutrition program developed culturally sensitive nutrition and health-related education products and resources that were made available to professional, students and the general public. The tropical fruits posters which has been produced continue to be distributed throughout the territory. A total of six hundred eighty (680) posters were distributed to individuals, organizations, and schools in the Virgin Islands. There has been positive indicators relative to improvement related to children and their families awareness of the importance of healthy lifestyles in the prevention of childhood obesity. Nutrition educators continue to report an increase in knowledge in the children and youth in the territory as related to healthy eating and the importance of physical activity.

#### Goal 5: Food Safety

These programs worked to reduce the incidences of food borne illness and provide a safer food supply by addressing and eliminating causes of microbial resistance to contaminants, educating consumers and food safety professionals and developing food processing technologies to improve safety.

The programs under this goal were Basic Food Safety Education, EFNEP and EFNEP Youth. The food safety program focuses attention on the importance of safe food handling and preparation in home kitchens; as well as educating low income families about basic nutrition and behavior change practices. Basic food safety information was disseminated through classes, demonstrations, experiential activities and lectures. The EFNEP Program continues to target low-income at risk clientele. Low income individuals enrolled in EFNEP were educated about the importance of proper personal hygiene, food storage and preparation, and food handling to prevent food borne illnesses.

The food safety program continues to administer pre- and post-tests which continues to demonstrate that children receiving information continue to improve on their knowledge gained.

Other programs that were conducted during this period include 4-H Summer Camp, 4-H Volunteer Development and Management, and 4-H Youth Development. The 4-H Development and Management Program continues to recruit and develop volunteers to lead and establish 4-H clubs in the community. Volunteer leaders received training on leadership styles, strategies and skills. As a result, they were expected and encouraged to model and foster leadership in their respective clubs and programs. A total of 29 adult volunteers and 12 teen leaders provided leadership for five 4-H clubs and two special interest groups on St. Croix, and one 4-H club and one special interest group on St. Thomas. The Virgin Islands 4-H Summer Program drew students from St. Croix and St. Thomas in a six weeks program. Two hundred eight-five students enrolled in the program on St. Croix and St. Thomas. Seventy-five teachers and students were employed. Courses were offered on the science of agriculture, natural resources and environmental education, energy conservation and education, technology applications, entrepreneurship and healthy lifestyles.

The Computer Training and Technology Program conducted a series of eight week Basic Computer Training Courses that taught participants how to use Microsoft Windows, Microsoft Word, E-mail and search for information using the World Wide Web. Residents continued to take Computer Literacy classes to help them acquire new skills for job placement and to advance in their present careers. 90% of individuals who participated indicated that they acquired/increased their knowledge and usage of Microsoft Windows. 91% of the individuals who participated indicated that they acquire/increased their knowledge and usage of Microsoft Word. 97% of the individuals who participated indicated that they acquired/increase their knowledge and usage of E-mails. 92% of the individuals who participated in the workshops indicated that they acquired/increased their knowledge and usage of the internet. 97% of the individuals who participated indicated that they acquired/increased their knowledge and usage in Microsoft Excel. 93% of the individuals who participated indicated that they acquired/increased their knowledge and usage of MS PowerPoint. The computer training and technology program graduated 235 students. These students acquired new computer skills that would help them in their re-employment.

CES established professional linkages with other agricultural organizations in the Eastern Caribbean. Short courses, workshops, and training sessions were conducted for agricultural specialists, youth leaders and volunteers. Two regional meetings were held and over two hundred twenty-five (225) scientists attended those meeting. Networks were established among the scientists. Extension specialists provided consultations on food and nutrition programs, sustainable agriculture, horticulture, and livestock production and management. Animal breeding stock was exchanged with other islands through the Breeders Exchange Program. A total of three hundred fifteen (315) animals were exchanged through this program. This assisted producers on the different islands to improve on their animals for breeding thereby increasing productivity. A directory of individuals and institutions in agricultural research and development in the Eastern Caribbean were expanded and updated. UVI/CES telecommunication systems for collaborative training with other regional institutions were utilized to train extension specialists and agents. CES assisted in the planning and execution of international and regional meetings for the Caribbean Food Crop Society and Caribbean Council of Higher Education in Agriculture (CACHE).

**Total Actual Amount of professional FTEs/SYs for this State**

Year: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	34.5	0.0	0.0	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

The programs that were developed by agents and specialists were sent to the state Program Leaders for their review, input, approval and were then submitted to the Associate Director for his input and budget allocation. After the Associate Director approved the programs, they were sent to the State Director for his review and approval. The programs were then forwarded to the Vice Provost for Research and Public Service, the Provost, and the University's Office of Sponsored Programs for comments and approval. The programs that were accepted were then forwarded to the Extension Advisory Council for its input and approval. Approved programs were shared with specific Commissioners for their comments and inputs. The final programs were sent to the State Director for final approval and implementation.

## 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
- Survey of traditional stakeholder groups
- Survey of traditional stakeholder individuals
- Survey of the general public
- Survey specifically with non-traditional groups

#### **Brief explanation.**

CES encouraged participation by the general public by announcing all its public meetings, listening sessions and town hall meetings through the local radio stations, television stations, and two local newspapers. Information was also sent to the UVI Public Information Specialist for distribution to the general UVI community and the general public bulletin board. Invitations were also sent to various farmers' groups such as St. Croix Farmers Cooperative, We Grow Food Inc., and St.

Croix Farmers in Action to encourage their members to participate in all extension programs and activities. Invitations were also sent to individuals who had attended any programs or activities conducted by CES or had contact with a specialist or agent, to participate in extension programs and activities. Volunteer groups, homemakers club, and other focus groups were sent special invitation to participate in extension program activities.

**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

**Brief explanation.**

Input was received from the CES Advisory Council and the Virgin Islands Farmers Cooperative. Input was also received from the Advisory Council of the Research and Public Service.

A needs assessment was conducted on CES clientele. CES evaluated its programs by giving participants of all seminars, meetings, and workshops survey forms to complete. Farm and clientele visits were made to determine the impact of the programs and suggestions made by clientele, were recorded and used to make improvements in CES educational programs and activities. CES conducted listening sessions and public meetings that were used to upgrade programs. These listening sessions and program activities were advertised through local newspapers, the University's Research and Public Service Newsletter, and the local television and radio stations.

**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
- Survey specifically with non-traditional groups
- Meeting with invited selected individuals from the general public

**Brief explanation.**

CES collected information and recommendations from its stakeholders at the Advisory Council's summer meeting. The Research and Public Service Advisory Council also provided recommendations for CES. Surveys of CES stakeholders were conducted by program staff during CES programming to get stakeholders involvement in setting priorities and addressing emerging issues in the community. CES held two general public meetings where information was advertised on the local radio stations, televisions, and newspapers to ensure that the Virgin Islands population has an equal chance of recording their concerns. This enabled CES to upgrade its programs and ensure that community needs were met.

**3. A statement of how the input will be considered**

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

**Brief explanation.**

Stakeholders' input was considered in the budget allocation of programs. Stakeholders' involvement helped CES in setting its priorities and addressing emerging issues in the community. During the year, CES strengthen its collaboration with the Virgin Islands Departments of Agriculture, Health, Labor, Education, Human Services, the Virgin Islands Housing Authority, and the Office of the Governor in addressing at-risk issues in the community. Stakeholders' input was also used in redirecting extension programs.

**Brief Explanation of what you learned from your Stakeholders**

CES stakeholders assisted the Extension Service in focusing on the needs of the community and also helped in focusing CES' activities on emerging issues. They enhanced CES programs and increased the number of participation in CES programs.

IV. Expenditure Summary

<b>1. Total Actual Formula dollars Allocated (prepopulated from C-REEMS)</b>			
<b>Extension</b>		<b>Research</b>	
<b>Smith-Lever 3b &amp; 3c</b>	<b>1890 Extension</b>	<b>Hatch</b>	<b>Evans-Allen</b>
960736	0	0	0

<b>2. Totaled Actual dollars from Planned Programs Inputs</b>				
<b>Extension</b>			<b>Research</b>	
	<b>Smith-Lever 3b &amp; 3c</b>	<b>1890 Extension</b>	<b>Hatch</b>	<b>Evans-Allen</b>
<b>Actual Formula</b>	960736	0	0	0
<b>Actual Matching</b>	1186515	0	0	0
<b>Actual All Other</b>	211679	0	0	0
<b>Total Actual Expended</b>	2358930	0	0	0

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



**V. Planned Program Table of Content**

S. No.	PROGRAM NAME
1	Global Food Security and Hunger: Small Livestock and Beef Production
2	Global Food Security and Hunger: Sustainable Agriculture
3	Global Food Security and Hunger: Urban Gardening
4	Climate Change: Natural Resources and Environmental Management Program
5	Climate Change: Water Quality Program
6	Climate Change: Urban Forestry Program
7	Sustainable Energy
8	Computer Training and Technology Program
9	4-H Volunteer Development and Management Program
10	A Healthy, Well-Nourished Population
11	Basic Food Safety Education - EFNEP and EFNEP Youth
12	Marketable Skills for Limited Resource Families, Youth and Communities
13	4-H Summer Program
14	4-H/Youth Development
15	Eastern Caribbean Extension Outreach and Interchange
16	Childhood Obesity
17	Food Safety

**V(A). Planned Program (Summary)**

**Program # 1**

**1. Name of the Planned Program**

Global Food Security and Hunger: Small Livestock and Beef Production

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
301	Reproductive Performance of Animals	20%			
302	Nutrient Utilization in Animals	15%			
307	Animal Management Systems	30%			
311	Animal Diseases	10%			
312	External Parasites and Pests of Animals	10%			
315	Animal Welfare/Well-Being and Protection	10%			
603	Market Economics	5%			
	<b>Total</b>	100%			

**V(C). Planned Program (Inputs)**

1. Actual amount of FTE/SYs expended this Program

Year: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	2.5	0.0	0.0	0.0
Actual Paid Professional	2.5	0.0	0.0	0.0
Actual Volunteer	1.0	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
80000	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
80000	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**

- A livestock brand registry was maintained to assist farmers and livestock agencies in identifying lost or stray livestock.
- A "Buy Local, Eat Fresh" program continued to promote the purchase and consumption of locally produced animal products.
- A parasite monitoring program continued for all livestock farms to document parasite populations and concentrations, with data being used in tick control programs.
- Test sites were set up and monitored to enhance forage evaluation in pasture and drought conditions.
- A program was initiated to demonstrate to producers the health and financial advantages of proper and adequate housing for livestock.
- Nutrition evaluation methods were demonstrated to producers so that they can determine the effects of reproduction and performance.

**2. Brief description of the target audience**

- Virgin Islands Livestock Producers
- Virgin Islands Consumers
- Virgin Islands Youth

**3. How was eXtension used?**

Obtaining resources and materials to provide information to farmers and producers.

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2012	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	450	3000	700	1000

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

**Patent Applications Submitted**

Year: 2012  
 Actual: 0

**Patents listed**

N/A

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2012	Extension	Research	Total
Actual	0	0	0

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- Workshops/demonstrations would be conducted on management, nutrition, housing, and identification of livestock

Year	Actual
2012	10

**Output #2**

**Output Measure**

- Pasture testing and demonstration sites would be set up for forage evaluation

Year	Actual
2012	2

**Output #3**

**Output Measure**

- Farms would be visited for general evaluation of management techniques and counseling

Year	Actual
2012	45

**Output #4**

**Output Measure**

- Farms would be visited for parasite monitoring and evaluation

<b>Year</b>	<b>Actual</b>
2012	20

**Output #5**

**Output Measure**

- Farms would be visited to weigh animals to monitor performance

<b>Year</b>	<b>Actual</b>
2012	8

**Output #6**

**Output Measure**

- Animal production would be monitored

<b>Year</b>	<b>Actual</b>
2012	40

**Output #7**

**Output Measure**

- Continue to implement a 'Buy Local' campaign with local farmers cooperative for use by producers in the community

<b>Year</b>	<b>Actual</b>
2012	1

**Output #8**

**Output Measure**

- Provide training to farmers in identification methods

<b>Year</b>	<b>Actual</b>
2012	2

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Establish and/or monitor five (5) sites annually to demonstrate the use of drought-resistant and nutritional forages for pastured livestock
2	Decrease animal losses due to parasites and poor nutrition by 5%
3	Increase the sales and consumption of locally produced livestock products such as meat and eggs by 5%
4	Increase the number of livestock herds/flocks using complete identification and recordkeeping practices by 10%
5	Increase the number of pig farmers that are raising their livestock in recommended facilities by 5%

## **Outcome #1**

### **1. Outcome Measures**

Establish and/or monitor five (5) sites annually to demonstrate the use of drought-resistant and nutritional forages for pastured livestock

### **2. Associated Institution Types**

- 1862 Extension

### **3a. Outcome Type:**

Change in Condition Outcome Measure

### **3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	7

### **3c. Qualitative Outcome or Impact Statement**

#### **Issue (Who cares and Why)**

Livestock Producers- Through pasture improvement, farmers are able to realize greater production of higher quality livestock. This results in increased sales to the consumer as well as decreased actual loss of stock and decreased health related costs

Virgin Islands Consumers- Consumers are able to purchase larger quantities of better quality meats to feed their families

#### **What has been done**

Farms have been visited and counseling given as to the best approach to improve the pastures, making sure to tailor each approach to fit the needs and intents of the farmer. Pastures already in the improvement phase have been monitored for continued progress and improvement.

#### **Results**

Of the farmers that have initiated improvement practices in the past, one has had excellent results resulting in superb pastures for his livestock. Two have had satisfactory results and are continuing in their efforts to improve. Two others have had poor results due to improper varieties of grasses used and poor grazing management. Two farms have initiated improvement efforts, with one of those approximately 2/3 of the way to completion and the other just starting the process.

### **4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
302	Nutrient Utilization in Animals
312	External Parasites and Pests of Animals
315	Animal Welfare/Well-Being and Protection

**Outcome #2**

**1. Outcome Measures**

Decrease animal losses due to parasites and poor nutrition by 5%

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	5

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Virgin Island Farmers- Parasites in livestock and poor nutrition cause the animals to grow poorly. Animals are slowed in their development, not growing as fast or as large. This results in more cost to the farmer for feed, medication for the resulting health issues and ultimately less sales to the consumer.

Retailers- livestock with high parasite loads cannot be marketed because of the poor quality of the meat produced. Therefore, retailers are forced to modify their inventory to meet the needs of their consumers, often with short notice. Purchased livestock may turn out to be non-marketable size and, therefore, not as palatable to the consumer.

Consumers- Consumers prefer locally produced products but demand quality in the meat that they purchase. If the desired product is not available, they are forced to buy elsewhere.

Health Care Professionals- Medications used in worming livestock can be transferred through the consumption of animal products to consumers. Care must be taken in the administration of these products to ensure that they are clear of the system before the animal enters into the food chain. Less use of these products decrease this chance.

**What has been done**

Farmers have been trained in detection methods for internal parasites so that they treat only the animals that need it. This lessens the chances of the medication getting into the food system as well as the chances of the parasites becoming immune to the treatment. This is a large problem throughout the world and farmers are having to resort to newer and stranger products to solve the parasite issue. Farmers have also been trained in proper pasture management techniques to facilitate proper rotational grazing of the pastures. Through proper rotation, parasite life cycles can be interrupted, resulting in less infection of the animals and less required treatment.



**Results**

More farmers are practicing rotational grazing. Several farmers are adding new grasses to their pastures to improve the nutritional content of the grazing. Farmers are treating animals less for parasites, but getting better results because they are only treating the ones that need it.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
302	Nutrient Utilization in Animals
307	Animal Management Systems
312	External Parasites and Pests of Animals
315	Animal Welfare/Well-Being and Protection

**Outcome #3**

**1. Outcome Measures**

Increase the sales and consumption of locally produced livestock products such as meat and eggs by 5%

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	5

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Producers- When sales of products increase, farmers' incomes increase.

Retailers- Retailers are able to offer more selection of locally produced products to meet the increased demand for them.

Consumers- Consumers want fresh, locally produced products and are willing to pay higher prices to obtain them. They feel that knowing who and how their food is produced is important.

**What has been done**

A local campaign has been in effect to increase awareness of the availability, quality and nutritional benefits of locally produced products.

### Results

The success of the "Buy Local" campaign is evidenced in the fact that local markets are now carrying eggs and meats that are produced locally. It is so successful that demand often exceeds supply of these items. As a result, there have been 2 additional egg producers that have started production. There are also plans by several other individuals to start other livestock enterprises (3 eggs, 1 broiler chicken, 1 goat, 1 swine)

### 4. Associated Knowledge Areas

KA Code	Knowledge Area
603	Market Economics

### Outcome #4

#### 1. Outcome Measures

Increase the number of livestock herds/flocks using complete identification and recordkeeping practices by 10%

#### 2. Associated Institution Types

- 1862 Extension

#### 3a. Outcome Type:

Change in Condition Outcome Measure

#### 3b. Quantitative Outcome

Year	Actual
2012	5

#### 3c. Qualitative Outcome or Impact Statement

##### Issue (Who cares and Why)

Farmers- Producers can keep more effective records when animals are identified. Through these records, they can make better decisions, resulting in a more successful operation.

Animal Health Personnel- Animals that are properly identified can be monitored and traced in the event of a disaster or disease outbreak.

Government Officials- Identification allows officials to keep track of livestock that have escaped from their farms, strayed or been stolen. It allows them to verify ownership.

Community- In the event of an accident, involved livestock can be traced to the owners.

##### What has been done

Many farmers now understand the importance of identification, however, with the depressed economy in the Virgin Islands, many of them have been forced to cut expenditures. Unfortunately

identification supplies are one of the casualties. The Department of Agriculture has helped to mitigate these circumstances slightly by offering tagging to some farmers, free of charge. Several farmers have availed themselves of this service.

## Results

### 4. Associated Knowledge Areas

KA Code	Knowledge Area
307	Animal Management Systems

### Outcome #5

#### 1. Outcome Measures

Increase the number of pig farmers that are raising their livestock in recommended facilities by 5%

#### 2. Associated Institution Types

- 1862 Extension

#### 3a. Outcome Type:

Change in Condition Outcome Measure

#### 3b. Quantitative Outcome

Year	Actual
2012	15

#### 3c. Qualitative Outcome or Impact Statement

##### **Issue (Who cares and Why)**

Farmers- Swine raised in recommended facilities are healthier, cleaner and grow faster. This results in a faster "turnaround" time for the farmer and a quicker return on his investment. Healthier pigs also need less inputs of medications, and wormers, since they are affected less by these maladies.

Consumers- Meat raised in recommended facilities are of a higher quality since the pigs don't have the problems of worms and filth. Consumers are more likely to buy meat from these farms.

Health Care Professionals- Meat that comes from swine raised in recommended facilities are not infested with organisms that can adversely affect humans and cause illness.

##### **What has been done**

Farm visits have been made. Counseling and advice have been given to farmers to assist them in the construction/improvement of their swine facilities.

## Results

Despite the economic situation in the Virgin Islands, there are two (2) swine farmers that are currently upgrading their existing facilities. A third individual is in the planning stage for constructing and opening a new swine farm at the site of one of the old dairies.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
307	Animal Management Systems
315	Animal Welfare/Well-Being and Protection

#### 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

##### Brief Explanation

Pasture improvement was adversely affected by the extended drought that the Virgin Islands experienced this year. Grass was extremely slow to germinate and grow due to the lack of water. Then, when the rains came, there was flooding conditions. Equipment used in the refurbishment could not gain access to the lands due to saturation.

The slowed economy in the Virgin Islands has affected all of the farmers by limiting their income. They have been forced to "tighten their belts" and cut many expenditures in order to get by. Many of the farm expenses have fallen victim to this. When forced to choose between the farm and everyday expences like groceries and electricity, the farm gets shorted.

#### V(I). Planned Program (Evaluation Studies)

##### Evaluation Results

Farmers that participated in the training sessions and workshops demonstrated a significant increase in knowledge on the subjects covered. In followup visits to ther farms, it was noted that many were implementing the recommended practices that were taught in the workshops. Several individuals have expressed a desire to, are in the process of or have actually opened new livestock enterprises.

##### Key Items of Evaluation

Knowledge and implementation of proper management techniques

Amount of availability and sales of locally produced products

**V(A). Planned Program (Summary)**

**Program # 2**

**1. Name of the Planned Program**

Global Food Security and Hunger: Sustainable Agriculture

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
111	Conservation and Efficient Use of Water	20%			
205	Plant Management Systems	20%			
307	Animal Management Systems	20%			
403	Waste Disposal, Recycling, and Reuse	20%			
601	Economics of Agricultural Production and Farm Management	20%			
	<b>Total</b>	100%			

**V(C). Planned Program (Inputs)**

1. Actual amount of FTE/SYs expended this Program

Year: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	4.1	0.0	0.0	0.0
Actual Paid Professional	4.1	0.0	0.0	0.0
Actual Volunteer	0.5	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
90000	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
120000	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**

1. Shortcourses, workshops, and demonstrations were conducted to disseminate information about recommended, research- based sustainable production practices, including composting, drip irrigation, etc.

2. Publications were developed and published to disseminate information regarding sustainable production and marketing practices.

3. Announcements were made through the print and electronic media to promote educational activities and disseminate information about sustainable agricultural practices.

4. Farm visits and telephone contacts were made to address clientele problems and to disseminate information about the program.

5. Workshops and other projects were conducted in partnership with other entities to implement strategies to increase farm water supply and enhance the efficient use of this resource.

**2. Brief description of the target audience**

The program's general target audience consisted of crop and livestock producers, outreach professionals from government and academic institutions, students, and young adults who aspire to be farmers. The primary audience were farmers who are typically socially disadvantaged, limited resource individuals who lack the necessary technical training, technological tools, and infrastructure for optimum farm production.

**3. How was eXtension used?**

eXtension was not used in this program

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2012	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	607	4000	180	300

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

**Patent Applications Submitted**

Year: 2012  
 Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2012	Extension	Research	Total
Actual	0	0	0

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- Number of shortcourses, workshops, demonstrations, annual fairs and exhibits

Year	Actual
2012	5

**Output #2**

**Output Measure**

- Number of publications

Year	Actual
2012	0

**Output #3**

**Output Measure**

- Number of announcements through print and electronic media

Year	Actual
2012	18

**Output #4**

**Output Measure**

- Number of farm visits and telephone contacts

Year	Actual
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2012

210

**Output #5**

**Output Measure**

- Projects to increase farm water supply and water use efficiency

**Year**

**Actual**

2012

1



**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Increase the number of farmers who use sustainable agriculture practices by 5%
2	Increase the number of farmers who utilize value added strategies by 10%
3	Increase the number of producers who adopt practices to enhance water use efficiency by 10%
4	Increase the number of farmers who conduct or enhance recordkeeping practices by 10%

## **Outcome #1**

### **1. Outcome Measures**

Increase the number of farmers who use sustainable agriculture practices by 5%

### **2. Associated Institution Types**

- 1862 Extension

### **3a. Outcome Type:**

Change in Condition Outcome Measure

### **3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	295

### **3c. Qualitative Outcome or Impact Statement**

#### **Issue (Who cares and Why)**

Each year, thousands of individuals are injured, hurt, or even killed on farms and around the home from preventable accidents in the territory and across the US. Safety education play a major role in reducing those numbers significantly. The average age of farmers in the VI is approximately fifty-five (55) years. There is a great need to get the next generation involved in food production. Some existing farmers still rely on practices that are unsustainable, they need to be educated in current best management practices.

#### **What has been done**

CES sponsored the 8th annual Progressive Agriculture Safety Day during the 4-H summer academy on St. Croix and St. Thomas. Safety instructors and professionals in various fields provided lectures and hands on demonstrations to enlighten and instruct the participants. With funding from a 3 year USDA grant, CES commenced the Beginning Farmer Training Program in an effort to recruit and educate younger Virgin Islanders into food production and improve the capacity of existing farmers.

#### **Results**

During the Progressive Agriculture Safety Day, approximately, 180 young people and 30 adults increased their awareness of the importance of preventing accidents and what steps that can take if an emergency arises.

Thus far, approximately 85 farmers on St. Thomas and St. Croix have increased their knowledge of filing their income taxes, introduction to computers, the fundamentals of rearing goats, chicken, pigs and sheep, producing selected vegetable crops, drip irrigation, and incorporating technology including social media into their farming practices.

## **4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
111	Conservation and Efficient Use of Water
205	Plant Management Systems
307	Animal Management Systems
403	Waste Disposal, Recycling, and Reuse
601	Economics of Agricultural Production and Farm Management

## **Outcome #2**

### **1. Outcome Measures**

Increase the number of farmers who utilize value added strategies by 10%

### **2. Associated Institution Types**

- 1862 Extension

### **3a. Outcome Type:**

Change in Knowledge Outcome Measure

### **3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	238

### **3c. Qualitative Outcome or Impact Statement**

#### **Issue (Who cares and Why)**

Because of over planting of crops, and /or the inability to sell all of the crops or livestock, farmers at times have decide what to do with the surplus. They have several options including dumping, giving it away, composting, or adding value to the product and sell it in a different form. The later has the potential of increasing the overall income of that farmer. It also brings to the market place more choices for the consumer

#### **What has been done**

During the annual World Food Day event, selected crops and livestock were featured through demonstrations and educational opportunities for the general public. Pineapple, pepper, and lamb were the featured commodities this year. Along with the production seminars, there were classes in which participants observed post-harvest processing and handling such as cooking, drink making, baking, preserving and drying of one or more of the featured commodities. Additionally, the annual Mango Melee and Tropical Fruit Festival, along with two agriculture and food fairs were used for the dissemination and display of value added information, demonstrations, and products.

Monitoring local food production is important in order to stay abreast of what is happening in our farming community. Extension staff attended the Bordeaux Farmers Market which occurs monthly and interacted with twelve (12) farmers and approximately twenty (23) consumers.

### Results

Approximately 252 farmers, agriculture professionals, home gardeners, and other residents learned how to grow and maintain peppers, and pineapple plants and were provide with handouts on each subject. They also became more aware of the potential for increasing income by converting unsold crops into value added products. Participants also learn sustainable ways to raise and manage sheep.

Thousands of residents increased their knowledge of the various uses and ways of preparing mango at Mango Melee and tropical fruit festival. They also became aware of the various flavors of different types of mangoes.

## 4. Associated Knowledge Areas

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water
205	Plant Management Systems
307	Animal Management Systems
601	Economics of Agricultural Production and Farm Management

### Outcome #3

#### 1. Outcome Measures

Increase the number of producers who adopt practices to enhance water use efficiency by 10%

#### 2. Associated Institution Types

- 1862 Extension

#### 3a. Outcome Type:

Change in Knowledge Outcome Measure

#### 3b. Quantitative Outcome

Year	Actual
2012	18

#### 3c. Qualitative Outcome or Impact Statement

##### Issue (Who cares and Why)

Of all the constraints and limitations on farming in the territory, insufficient supplies of supplemental water and erratic rainfall patterns make crop production and animal husbandry a challenge. Water conservation and efficient distribution are key elements in farmer?s management practices. Accessible sources of supplemental water are also vitally important to the successful operation of the farm.

**What has been done**

CES displayed a 4600 gallon water storage container called a Quick Tank at the annual St. Thomas/St. John Agriculture and Food Fair. The tank was also stocked with tilapia fish as an example of a potential additional income source for the farmer.

**Results**

Eighteen (18) farmers became more aware of the benefits of investing in a Quick Tank as they interacted directly with extension staff. Hundreds of other farmers and residents also became more aware of an additional source for building supplemental water storage capacity.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
111	Conservation and Efficient Use of Water
205	Plant Management Systems
307	Animal Management Systems

**Outcome #4**

**1. Outcome Measures**

Increase the number of farmers who conduct or enhance recordkeeping practices by 10%

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	7

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Natural and man-made disasters occur each year in the Virgin Islands. In providing assistance, from both federal and local, production records of activity prior to the disaster are required in order to qualify for aid. If a farmer wants to borrow money for expansion, he/she is required to produce documentation of the farms profitability. However, many farmers fail to keep proper records and in some instance no records at all and thus disqualifying them from disaster aid and/or denying them the opportunity to expand their operations.

**What has been done**

CES partnered with the Virgin Islands Department of Agriculture the Small Business Development Center and the Internal Revenue Bureau as they conducted two seminars; one on recordkeeping and the other on filling income tax returns including the Schedule F, IRS form.

**Results**

Approximately (7 St. Thomas? St. Croix) farmers increased their knowledge of the importance of record keeping to their overall operation. Ninety-five percent (95%) are better informed on the preparation of the Schedule F tax form.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
205	Plant Management Systems
307	Animal Management Systems
601	Economics of Agricultural Production and Farm Management

**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

**Brief Explanation**

**V(I). Planned Program (Evaluation Studies)**

**Evaluation Results**

Post seminar tests were conducted in some of instruction classes in order to measure increase in knowledge, and behavioral changes. Some data was obtained from verbal responses to a series of questions designed to extract knowledge levels, attitudes, as well as past and short term future (three months) behavioral changes.

**Key Items of Evaluation**

**V(A). Planned Program (Summary)**

**Program # 3**

**1. Name of the Planned Program**

Global Food Security and Hunger: Urban Gardening

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
205	Plant Management Systems	95%			
403	Waste Disposal, Recycling, and Reuse	5%			
	<b>Total</b>	100%			

**V(C). Planned Program (Inputs)**

1. Actual amount of FTE/SYs expended this Program

Year: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	2.2	0.0	0.0	0.0
Actual Paid Professional	2.2	0.0	0.0	0.0
Actual Volunteer	0.5	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
50000	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
50000	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

Conducted educational classes, workshops, seminars, field days, field demonstrations, exhibits and tours.

Developed publications, resource materials, and curriculum guides.

Conducted on-site visits and one-on-one counseling.

Conducted a series of workshops through the use of electronic media.

**2. Brief description of the target audience**

- Home owners
- Horticultural Organizations
- Public Housing Residents
- Senior citizens homes
- School teachers
- Policy Makers
- Master Gardeners Candidates
- Youth groups

**3. How was eXtension used?**

eXtension was not used in this program

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2012	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	1415	8500	509	800

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

**Patent Applications Submitted**

Year: 2012

Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2012	Extension	Research	Total
<b>Actual</b>	0	0	0

**V(F). State Defined Outputs**

**Output Target**



**Output #1**

**Output Measure**

- Number of educational classes to help residents to plan and create a garden

<b>Year</b>	<b>Actual</b>
2012	11

**Output #2**

**Output Measure**

- Number of workshops/demonstrations using low cost, efficient, technologies, practices and principles in gardening

<b>Year</b>	<b>Actual</b>
2012	11

**Output #3**

**Output Measure**

- Number of educational classes in the benefits of proper garden management

<b>Year</b>	<b>Actual</b>
2012	10

**Output #4**

**Output Measure**

- Number of one-on-one consultations with residents about gardening

<b>Year</b>	<b>Actual</b>
2012	110

**Output #5**

**Output Measure**

- Number of articles/publications on urban gardening management

<b>Year</b>	<b>Actual</b>
2012	2

**Output #6**

**Output Measure**

- Number of fairs and exhibits displaying best management practices and other information pertaining to the Urban Gardening program

<b>Year</b>	<b>Actual</b>
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2012 5

**Output #7**

**Output Measure**

- Number of radio, tv, or web based, print media appearances/programs promoting urban gardening

<b>Year</b>	<b>Actual</b>
2012	2

**Output #8**

**Output Measure**

- Number of demonstration sites developed using urban gardening principles and practices

<b>Year</b>	<b>Actual</b>
2012	2

**Output #9**

**Output Measure**

- Number of public and private entities and individuals establishing gardens

<b>Year</b>	<b>Actual</b>
2012	45

**Output #10**

**Output Measure**

- Number of residents, non-profit organizations, and public and private entities establishing composting projects.

<b>Year</b>	<b>Actual</b>
2012	5

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Increase the number of residents residents who will become more aware of the benefits of gardening by 10%
2	Increase the number of residents,who increase their knowledge of more efficient low cost technologies, practices, and principles by 10%
3	Increase the number of home gardeners who realize a reduction in their cost of living resulting from urban gardening byy10%
4	Increase the number of residents who will establish gardens by 10%
5	Increase the number of residents who start compost by 10%

**Outcome #1**

**1. Outcome Measures**

Increase the number of residents who will become more aware of the benefits of gardening by 10%

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	766

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Gardening is an easy way to get children moving and active during the school day. Gardening also encourages healthy eating habits which aid in the fight against childhood obesity. Exposing youth to the benefits of gardening and giving them opportunities to see cultivated gardens sometimes creates an interest and excitement in the mind of a young person. Providing teachers with the information needed to create and manage a school garden is also an important part of this process. The Center for independent Living provides physically challenged residents with educational opportunities and training that would allow them to lead independent lives in and around their home and in the community. The combination of increasing prices for energy, food, and health care continues to force residents to adjust their spending habits through finding ways to save money and making every dollar stretch as far as possible. A well-managed landscape serves as a source of horticultural therapy and contributes to overall well-being of Virgin Islands residents. Health and wellness campaigns help draw attention to issues affecting the quality of life for Virgin Islands residents. These events help to raise awareness of specific subject areas and provide vital information to help residents make informed decisions regarding their personal health or the health of a family member.

**What has been done**

CES facilitated a seed planting activity with the fathers and children who attended the annual Father/Child Activity Day sponsored by the Department of Human Services. CES staff made presentations on how gardening relates to the school curriculum, to teachers from the St. Croix American Federation of Teachers. It was part of their TEACH in-service training program. CES presented a lecture and answered questions about gardening from members of the Center for Independent Living. CES completed a series of lectures, displays and live demonstrations at various activities throughout the territory. The annual Agriculture and Food Fair of the Virgin Islands on St. Croix, the annual Folk Life Festival on St. John, the annual Bordeaux Rastafari Agriculture and Food Fair, Afternoon on the Green and the Seventh Day Adventist Church Family

Life Expo, National Agriculture Week on St. Thomas provided CES with opportunities to present information and respond to a wide audience. During National Nutrition week CES staff partnered with schools in the St. Thomas District to make presentations on the benefits of gardening. The Division of Personnel of the Government of the Virgin Islands in conjunction with the CIGNA Insurance and CES launched a wellness campaign for V.I. Government employees and retirees. Extension staff conducted 3, six (6) week Introduction to Gardening classes on St. Thomas and St. Croix. These classes were designed to provide basic hands-on education and instruction on creating and maintaining home gardens. During the CES 40th anniversary celebration of land-grant programs in the VI, CES staff presented a seminar entitled How to Start a Vegetable Garden. Attendees were provided with information about locating the garden, vegetable selection, soil fertility, and much more.

### Results

Approximately fifty (50) fathers became more aware of how engaging in gardening projects can help to build strong emotional and social ties between them and their children. Twenty-nine (29) teachers from the St. Croix American Federation of Teachers became more aware of how a school garden can be used effectively to augment their teaching curriculum. Thirteen (13) physically challenged individuals became more aware of the role that gardening can play in their lives. With the use of assistive technology, some of the attendees were also able to navigate the CES website for additional information. Forty two (42) student and four (4) teachers from the Leonard Dober Elementary School became more aware of the benefits of gardening and the need to grow their own food. Approximately, four hundred seventy eight (478) residents also increased their knowledge of the benefits of gardening, the various types of container gardens. Sixty-three (63) government employees persons became more aware of the benefits of garden and increased their knowledge of how to start and maintain a vegetable garden. Approximately, eighty-seven (87) residents increased their knowledge of what is involved in starting a vegetable gardening.

## 4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems

### Outcome #2

#### 1. Outcome Measures

Increase the number of residents, who increase their knowledge of more efficient low cost technologies, practices, and principles by 10%

#### 2. Associated Institution Types

- 1862 Extension

#### 3a. Outcome Type:

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	1125

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Some teachers across the territory are seeing the value of having a school garden as a means of augmenting their curriculum and providing a healthful activity for their students. Providing teachers with the information needed to create and manage a school garden will enable them to achieve both objectives. Studies have shown that when families work together on a project or are involved in a collaborative activity, it usually results in a number of positive family strengthening outcomes. The outcomes are even more dynamic when fathers are actively involved in the project or activity.

**What has been done**

CES staff made two presentations on creating a garden and soil fertility to twenty-nine (29) teachers from the St. Croix American Federation of Teachers. Extension staff provided information on box gardening and grafting and answered questions about gardening in general. CES facilitated a seed sowing activity with fathers and their children at the annual Father/Child Activity Day sponsored by the Department of Human Services. Extension staff had a display at the? Positive Men Create Strong Families? fun day also sponsored by the Department of Human Services at the Emile Griffith Ball Park on St. Thomas. Extension staff provided information on box gardening and grafting and answered questions about gardening in general. The Division of Personnel of the Government of the Virgin Islands in conjunction with the CIGNA Insurance launched a wellness campaign for V.I. Government employees and retirees. CES conducted 3, six (6) week Introduction to Gardening classes on St. Thomas and St. Croix. These classes were designed to provide basic hands-on education and instruction on a creating and maintaining home garden. During the CES 40th anniversary celebration of land-grant programs in the VI, extension staff presented a seminar entitled How to Start a Vegetable Garden. Attendees were provided with information about locating the garden, vegetable selection, soil fertility, and much more. Extension staff also conducted a workshop on creating a vegetable garden for staff of the Department of Human Services Head Start Program.

**Results**

Twenty-nine (29) teachers were provided with publications; received answers to questions pertaining to the topics presented and increased their knowledge of basic garden management. Approximately fifty (50) fathers accompanied by their child(ren) learned how to sow the seeds in a cup soil and were provided with information about the best way to take care of the plant when as it is growing. Approximately twelve (12) persons received handouts on tire and box gardening at the Human Services family fun day. Forty two (42) students and four (4) teachers from the Leonard Dober Elementary School became more aware of the benefits of gardening and the need to grow your own food locally. Approximately, four hundred seventy eight (478) residents also increased their knowledge of the benefits of gardening, the various types of container gardens. One hundred fifty- eight adults (158) and eighty-six (86) youth increased their knowledge of current technology for greater water use efficiency, garden design and construction while visiting the CES demonstration garden. As a result of the Introduction to Gardening classes, sixty-three (63) persons became more aware of the benefits of garden and increased their knowledge of how to start and maintain a vegetable garden. Approximately, eighty-seven (87) residents increased

their knowledge of what is involved in starting a vegetable gardening. Approximately fifty-nine (59) Head Start staff increased their knowledge box garden construction, drip irrigation, and garden location among other subjects. Forty (40) children and seven (7) adults learned how to sow seeds at a hands-on workshop at the Bergs Home Head Start on St. Thomas. Eight (8) Pathfinders and two (2) adults of the Philadelphia Seventh-day Adventist (SDA) Church learned how to construct a container garden and transplanting vegetable seedlings as part of a gardening honor.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
205	Plant Management Systems

**Outcome #3**

**1. Outcome Measures**

Increase the number of home gardeners who realize a reduction in their cost of living resulting from urban gardening by 10%

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2012	27

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Ninety-five (95%) to ninety-nine (99%) of food consumed in the Virgin Islands is imported. With the additional cost of shipping and handling, store owners mark up, and utility cost, Virgin Islands residents pay extremely high cost for food. If there is a way to reduce the cost of food, residents could save money and possibly shift financial resources to other aspects of life.

**What has been done**

Participants in the Introduction to Gardening class sponsored by the V.I. Department of Personnel received instruction and technical advice and were provided with hands-on opportunities for building, maintaining and harvesting crops from their gardens. SDA Church Pathfinders and staff also received guidance and instruction in constructing individual container gardens of herbs and vegetables.

**Results**

Approximately thirty percent (30%) of participants in Introduction to Gardening class and seventy percent (70%) of the Pathfinders have reported a savings in the cost of certain commodities as a

result of this project.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
205	Plant Management Systems

**Outcome #4**

**1. Outcome Measures**

Increase the number of residents who will establish gardens by 10%

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	51

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Virgin Islands residents for the most part have been exposed to gardening either from practical experience or from visiting a neighbors garden. Those who may have had gardens gave up gardening for one reason or another. Obesity among youth and adults is a major concern of healthcare professionals territory wide. Youth need to experience the benefits of gardening as well.

**What has been done**

The Division of Personnel of the Government of the Virgin Islands in conjunction with the CIGNA Insurance launched a wellness campaign for V.I. Government employees and retirees. CES conducted 3, six (6) week Introduction to Gardening classes on St. Thomas and St. Croix. These classes were designed to provide basic hands-on education and instruction on a creating and maintaining home garden.

Eight (8) Pathfinders and two (2) adults of the Philadelphia Seventh-day Adventist Church learned how to construct a container garden and transplanting vegetable seedlings as part of a gardening honor. Extension staff also conducted a workshop on creating a container vegetable garden for staff members and the Department of Human Services Head Start Program



### Results

As a result, approximately thirty-five percent (35%) of participants in the DOP Introduction to Gardening class reported starting some type of a vegetable garden. All ten (10) members of the Philadelphia Seventh-day Adventist Church Pathfinder Club established container gardens at their homes. Approximately fifty percent (50 %) if the Bergs Home Head Start children and staff established container gardens.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems

#### Outcome #5

##### 1. Outcome Measures

Increase the number of residents who start compost by 10%

##### 2. Associated Institution Types

- 1862 Extension

##### 3a. Outcome Type:

Change in Condition Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2012	8

##### 3c. Qualitative Outcome or Impact Statement

###### Issue (Who cares and Why)

Virgin Islanders discard tons of materials, particularly, yard waste each year. That material can be recycled into compost and used to improve the health of the soil and grow better and healthier plants. Exposing young people to this type of information at an early age will help them to make sound decisions in the future regarding the management of natural resources.

Reducing the amount of yard waste that enters the territories landfill is one of several strategies being used by the VI Government in its Reduce, Reuse, and Recycle campaign.

###### What has been done

CES conducted composting seminars, workshops, and demonstrations for government agencies and the general public annually. CES partnered with the Waste Management Authority to conduct two (2) composting demonstrations in the St. Thomas/St. John district. During the annual Earth Day activities on St. John, extension staff displayed a miniature replica of a composting pile and

provided handouts for students and staff of various schools on the subject.

### **Results**

Forty-four (44) residents received hands-on education in building a backyard compost pile along with literature on composting. Approximately one hundred (100) youth and thirty-four (34) adults became more aware of the benefits of recycling yard wastes and food scraps and the contribution that composts makes to improving soil quality.

## **4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
403	Waste Disposal, Recycling, and Reuse

### **V(H). Planned Program (External Factors)**

#### **External factors which affected outcomes**

- Natural Disasters (drought, weather extremes, etc.)
- Competing Public priorities
- Competing Programmatic Challenges

#### **Brief Explanation**

Competing public priorities and program challenges resulted in some outcomes not being fully realized.

### **V(I). Planned Program (Evaluation Studies)**

#### **Evaluation Results**

Staff shortages have hampered our ability to fully execute plans for the urban gardening projects. Some data was collected but more long term follow up behavioral changes is still needed.

#### **Key Items of Evaluation**

**V(A). Planned Program (Summary)**

**Program # 4**

**1. Name of the Planned Program**

Climate Change: Natural Resources and Environmental Management Program

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	35%			
123	Management and Sustainability of Forest Resources	35%			
134	Outdoor Recreation	20%			
136	Conservation of Biological Diversity	10%			
	<b>Total</b>	100%			

**V(C). Planned Program (Inputs)**

**1. Actual amount of FTE/SYs expended this Program**

Year: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	2.8	0.0	0.0	0.0
Actual Paid Professional	2.8	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
80000	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
75500	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

- Continued participation with the development and implementation of environmental management master plans for Magens Bay, Estate Adventure Trail, and Great Pond Park recreation areas and a Magens Bay watershed advisory committee. Habitat protection and restoration plans/procedures will also be used to restore and/or protect other critical habitats, areas of particular concern in the territory, and areas designated as part of the VI Territorial Park initiative established by the Legislature of the VI in 2004.
- Developed resource conservation education outreach materials to engage the islands' growing immigrant populations and disseminate materials and information utilizing an innovative approach that incorporates and builds upon indigenous knowledge and practices.
- Developed web sites, materials, workshops, presentations and demonstrations (in-formal learning sites) that relay information regarding native plants, ecosystems and habitats; naturalized, exotic, endangered and threatened plant species; urban forestry and other resource conservation issues.
- Utilized the media to promote Natural Resources programs through various methods, including, but not limited to, radio and television PSAs, television video spots, E-education, local talk shows (radio & TV), and presentations.
- Identified and developed technical materials related to resource conservation; pollution control practices; and native, medicinal, naturalized, exotic, endangered and threatened plant species for use by researchers, policy-makers and regulatory personnel.
- Provided technical assistance on a variety of topics, including but not limited to, plant identification, selection and maintenance; native, naturalized, exotic, endangered and threatened plant species; natural products development, environmental assessment; ecotourism development and other resource conservation issues to government agencies, community groups, various areas of the private sector, students and the general public.
- Played a lead role in facilitating the interaction of community groups and leaders to address natural resource conservation and management issues, as well as pollution control and prevention.
- Conducted ecotours for local schools and groups (mostly on St. Croix) to stimulate interest in careers in science, ecotourism or environmental management and to provide students and others with a general introduction to VI natural and cultural resources.

## 2. Brief description of the target audience

- Policy-makers and regulatory personnel, community groups, teachers and students, business community, non-governmental organizations, and the general public.
- Those charged with managing public recreation areas including the Magens Bay Authority, VI Territorial Park Advisory Committee, St. Croix East End Marine Park Committee, and Great Pond Park.
- Local environmental associations and Rotary Clubs that engage in activities to conserve and manage the VI environment.
- Immigrant populations whose practices (land clearing techniques, littering, etc.) negatively impact VI natural resources. Efforts will be made to identify contacts.

**3. How was eXtension used?**

eXtension was not used in this program

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2012	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	302	500	174	250

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

**Patent Applications Submitted**

Year: 2012

Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2012	Extension	Research	Total
<b>Actual</b>	0	0	0

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- Education/Classes in natural resources management, VI forest ecosystems

Year	Actual
2012	10

**Output #2**

**Output Measure**

- Workshops -VI forests, medical plants, environmental landscaping, watershed awareness, VI cultural and natural history, ecotourism, in-door air quality

<b>Year</b>	<b>Actual</b>
2012	9

**Output #3**

**Output Measure**

- One on One consultation with residents, government employees, students

<b>Year</b>	<b>Actual</b>
2012	165

**Output #4**

**Output Measure**

- Tours of VI natural areas for students and community groups

<b>Year</b>	<b>Actual</b>
2012	7

**Output #5**

**Output Measure**

- E-education - NREM websites updated

<b>Year</b>	<b>Actual</b>
2012	1

**Output #6**

**Output Measure**

- Publications, articles, posters related to natural resources and environmental management

<b>Year</b>	<b>Actual</b>
2012	8

**Output #7**

**Output Measure**

- Demonstration site relating to native plants, environmental management

<b>Year</b>	<b>Actual</b>
2012	5

**Output #8**

**Output Measure**

- PSA's  
Not reporting on this Output for this Annual Report

**Output #9**

**Output Measure**

- Fairs

<b>Year</b>	<b>Actual</b>
2012	3

**Output #10**

**Output Measure**

- TV/Media

<b>Year</b>	<b>Actual</b>
2012	1

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	The recommended BMP's in environmental management master plans will be adopted by one natural resource manager annually. Successful plans will be used as prototypes for other critical habitats, parks and areas designated as part of the VI Territorial Park.
2	After attending non-formal education programs, the number of people who adopt recommended landscaping practices, incorporate native plants into their landscapes, protect and/or enhance soil resources for agriculture, construction, and landscaping will increase by 30%
3	As a result of direct and indirect contacts the number of adults and students who adopt practices that protect native plants and their habitats because of their increased understanding of the human effects on native ecosystems will increase by 200
4	Increase the number of stakeholders (government personnel, developers, community groups and students) who became more aware of the connections between terrestrial and marine communities, how watersheds function, and the importance of watershed protection by 500.
5	Based upon watershed research, the number of projects within targeted watersheds which protect water quality will increase by one, annually.
6	The number of Virgin Islands youth who increase their awareness of VI natural and cultural resources, and careers in environmental management and ecotourism will increase annually by 300



## **Outcome #1**

### **1. Outcome Measures**

The recommended BMP's in environmental management master plans will be adopted by one natural resource manager annually. Successful plans will be used as prototypes for other critical habitats, parks and areas designated as part of the VI Territorial Park.

### **2. Associated Institution Types**

- 1862 Extension

### **3a. Outcome Type:**

Change in Condition Outcome Measure

### **3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	3

### **3c. Qualitative Outcome or Impact Statement**

#### **Issue (Who cares and Why)**

The Magens Bay Authority and other local government agencies, Forest Stewardship Advisory Committee (U.S. Dept. of Forestry), St. Croix Environmental Assoc. and the Nature Conservancy (NGOs), or private landowners with conservation areas are manage natural areas but are limited in their management resources. Hotel managers and developers are also responsible for implementing sound environmental management practices to protect their properties and critical natural resource habitats.

#### **What has been done**

CES helped partners (MBA, VI Dept. of Agriculture and St. Thomas Humane Society) develop natural resource management plans related to landscaping with native plants and preserving native plant communities. CES provided requested Information to CZM permit applicants about BMPs to incorporate into landscape management plans, and contributed to several Forest Stewardship Program management plans that landowners (3+ acres) are required to follow to receive program benefits.

#### **Results**

With CES's assistance, MBA planned an extensive planting project at Smith Bay Territorial Park (St. Thomas) using native trees along newly constructed roadways. Based on CES's technical advice, MBA used these roadside trees to slow stormwater runoff from the roads. CZM major permit applicants included recommendations by CES in landscape plans. As a VI Dept. of Agriculture Forest Stewardship Program member, CES approved a master plan (i.e. native forest conservation) included in the purchase agreement of a large St. Croix conservation property through the Forest Legacy Program. Landowners enrolled in the Forest Stewardship Program followed master plans approved by CES. CES provided technical assistance with the planning of 100 + acre native plant landscaping project on the new St. Humane Society property on St.

Thomas.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
112	Watershed Protection and Management
123	Management and Sustainability of Forest Resources
136	Conservation of Biological Diversity

**Outcome #2**

**1. Outcome Measures**

After attending non-formal education programs, the number of people who adopt recommended landscaping practices, incorporate native plants into their landscapes, protect and/or enhance soil resources for agriculture, construction, and landscaping will increase by 30%

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	55

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Developers, engineers, architects, environmental groups, resource managers, businesses and property owners requested technical information to protect landscapes and the environment, comply with the VI government permitting requirements for earth-change operations and construction or to develop urban landscape plans.

**What has been done**

Through phone/office consultations, publications, site visits, volunteer training and the CES Environmental Repository, CES provided clients with information about native plants in various ways including: conservation, environmental landscaping, plant identification, forest conservation, plant selection for urban forests and erosion control. CES increased collaboration with professionals involved with developing plans and outreach programs to introduce native plants into urban and park landscapes.

**Results**

DPNR personnel (CZM, DFW, and Permits) referred permit applicants to CES for assistance with

identifying and preserving native plant communities on construction sites, as a result, applicants selected native trees for projects. CES convinced several individual landowners to preserve or cultivate native plants. The VI Environmental Associations utilized CES strategies for protecting and planting native plants on public properties. Landscape architects were assisted with developing lists of suitable native plants for landscaping to be distributed to regulatory agencies and the general public. Native plants were used to restore VI historic sites based on CES recommendations, and plans were developed to expand the introduction of native plants into urban settings.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
123	Management and Sustainability of Forest Resources

**Outcome #3**

**1. Outcome Measures**

As a result of direct and indirect contacts the number of adults and students who adopt practices that protect native plants and their habitats because of their increased understanding of the human effects on native ecosystems will increase by 200

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2012	200

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Many educators, resource managers, students, environmental groups, developers, environmental professionals, architects, engineers and the general public want to increase their understanding of V.I. native plants/natural ecosystems and the effects of human alterations to natural ecosystems.

**What has been done**

CES delivered information to students, landowners and advisory committees about how humans impact native plant habitats. CES is participating in a 2-year project to restore the St. Thomas UVI-CES Diagnostic Herbarium with the goal of making more information about VI flora available. Tours were conducted to evaluate human impacts on native plant ecosystems, and CES participated in developing a grant proposal to draft ?VI tree law? legislation that was recently approved.

**Results**

CES is training UVI students to manage plant specimens in the CES Herbarium, develop plant data-bases and create educational webpages focusing on VI native flora. Staff has been taking photos of these plants. During the herbarium inventory, databases for 14 separate VI plant collections from 1969-2001 were created, improving the usefulness and value of these collections for reference and as support for natural products research and environmental education. Ethnobotanical information derived from the herbarium collections is now available on a CCAM-CES website. VI 6-12 grade teachers continue to utilize materials about VI native flora originally developed by CES. The UVI Master of Environmental Science Program and Yale University used the CDC-CES book, Island Peak to Coral Reef. It also was recommended on websites operated by tour companies and the VI National Park. As a result of CES site visits and office consultations, clients indicated that their awareness of the issues affecting terrestrial resources increased.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
123	Management and Sustainability of Forest Resources

**Outcome #4**

**1. Outcome Measures**

Increase the number of stakeholders (government personnel, developers, community groups and students) who became more aware of the connections between terrestrial and marine communities, how watersheds function, and the importance of watershed protection by 500.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2012	200

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Stakeholders (government personnel, developers, community groups, resource managers, educators, students) requested information about the connections between terrestrial and marine communities and watershed protection. Reasons for requests included: concern about environmental degradation, environment management in Territorial Parks, protection of coastal resources on hotel and private properties, DPNR requirements that permit applicants consult CES for technical information, class assignments.

**What has been done**

CES continued partnerships with VI Forest Stewardship Program, Magens Bay Authority, UVI science faculty, UVI Master of Marine and Environmental Science Program, Yale U. Watershed Management Program, and the Island Green Builders Assoc. to investigate land-sea interconnectivity. CES delivered information about watershed protection during interactions with developers, site visits, informal meetings, field trips, advisory committee participation, phone consultations and publication distribution.

**Results**

During routine interactions with stakeholders in coastal areas, CES learned about local resource management issues and possible land-based sources of impacts to coastal water observed by stakeholders. As a result, CES made recommendations or reported stakeholder complaints to resource managers/ regulatory personnel who made efforts to address the problems. Watershed information shared with working groups, students, resource managers (Magens Bay Authority, Coral Bay Community Council) was incorporated into management strategies or research activities. As member of the VI Forest Stewardship and Forest Legacy Program committees, CES participated in the development of long-range strategies to purchase and conserve VI priority watersheds and watershed management plans adopted by private property owners enrolled in programs. Exhibits developed by CES's herbarium restoration project informed the public about the usefulness of key coastal and mangrove plants within a watershed context.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
112	Watershed Protection and Management
136	Conservation of Biological Diversity

**Outcome #5**

**1. Outcome Measures**

Based upon watershed research, the number of projects within targeted watersheds which protect water quality will increase by one, annually.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2012	3

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Those directly and indirectly responsible for watershed management (Magens Bay Authority, National Park Service, UVI, Governmental agencies, property owners, NGOs) require research-based information to be able to make the best decisions regarding watershed protection.

**What has been done**

CES continued to provide technical assistance to the Yale U. School of Coastal and Watershed Management program director and graduate students who are investigating VI watershed management issues and conducting long-term monitoring of VI guts. CES research related to VI native plants in specific habitats enabled environmental associations and resource managers to select the best trees to plant in coastal parks.

**Results**

These recent research-based products developed with CES input have provided resource specialists and managers with useful data on which to base management decisions and planning. Native trees were successfully planted in along VI territorial park access roads and on a business construction site near a public beach to help control stormwater runoff.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
112	Watershed Protection and Management

**Outcome #6**

**1. Outcome Measures**

The number of Virgin Islands youth who increase their awareness of VI natural and cultural resources, and careers in environmental management and ecotourism will increase annually by 300

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	800

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

The VI has an economy based on tourism attracted by the natural and cultural resources and scenic beauty of the islands. Both residents and tourists rely on the high-quality presentation and maintenance of these valuable resources to preserve the economy, standard of living and the

environment. VI residents, especially VI youth, need guidance into interesting careers in the local economy that support environmental management and protection. CES partnered with environmental associations and agritourism NGO's to provide information about natural and cultural resources.

**What has been done**

CES continued to provide VI Taxi drivers/tour operators with information about Virgin Islands natural resources to be used in educational tours conducted for tourists and local school students. VI tour company websites advertised and recommended CES natural resource publications. CES continued to provide developers of ecotourism destinations with information about the value of preserving and featuring natural habitats. CES assisted with conserving VI properties suitable for ecotourism

**Results**

Taxi tour directors incorporated CES information into their tours and certification curriculum used for training tour directors. Tour directors indicated that the information provided by CES improved the quality and educational value of their tours. The developers of a St. Thomas cultural and natural history park and wildlife petting zoo continued to use CES's recommendations regarding the use of native plants in the landscape. CES publications about native plants and ecosystems were used and promoted by VI tour companies. Through its involvement with the Forest Stewardship and Forest Legacy Programs, CES help preserve Forests and cultural features on St. Croix properties with ecotourism potential. Resource managers and property owners considered developing ecotourism attractions based on information about natural and cultural history provided by CES.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
123	Management and Sustainability of Forest Resources
134	Outdoor Recreation

**V(H). Planned Program (External Factors)**

**External factors which affected outcomes**

- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities

**Brief Explanation**

CES maintained good relationships with staff in various VI governmental regulatory agencies that affect VI natural resources management including the VI Dept. of Planning and Natural Resources, Waste Management Authority, the VI Dept. of Agriculture and the Environmental Protection Agency. There is a high amount of turnover in the VI government agencies. It is difficult to establish very effective long-term relationships that can result in policy changes and training. Also, many of the employees in these agencies acknowledge the need for more comprehensive enforcement of environmental laws, but they are already

overextended and need additional staff support to effectively enforce existing regulations, or they may be experiencing resistance to change at the legislative level. Recent governmental fiscal cutbacks restrict hiring staff. Some employees are hesitant about enforcing environmental regulations because of various political pressures.

### **V(I). Planned Program (Evaluation Studies)**

#### **Evaluation Results**

CES worked closely with Territorial Park managers to plan, implement and evaluate BMPs various VI Territorial Parks. CES communicated closely with managers during the implementation of BMPs, and managers responded favorably to the informal evaluation methods used by CES. Clients and viewers verbally indicated interest and approval after NREM presentations or media appearances. Standard evaluation forms are used during workshops and training programs, and Research project reports and publications were peer-reviewed. A positive evaluation of CES's recently formed partnerships with UVI science and nursing faculty and students participating in the UVI-CCAM research project earned favorable responses of the project P.I., co-researchers and students. CCAM recipients requested that CES take more of a leadership role in the project.

#### **Key Items of Evaluation**

All key items of evaluation were used.



**V(A). Planned Program (Summary)**

**Program # 5**

**1. Name of the Planned Program**

Climate Change: Water Quality Program

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
101	Appraisal of Soil Resources	10%			
104	Protect Soil from Harmful Effects of Natural Elements	10%			
111	Conservation and Efficient Use of Water	10%			
112	Watershed Protection and Management	10%			
133	Pollution Prevention and Mitigation	60%			
	<b>Total</b>	100%			

**V(C). Planned Program (Inputs)**

1. Actual amount of FTE/SYs expended this Program

Year: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	1.9	0.0	0.0	0.0
Actual Paid Professional	1.9	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
80000	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
80000	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
41478	0	0	0

## **V(D). Planned Program (Activity)**

### **1. Brief description of the Activity**

Trained local government agency personnel, maintenance professionals, community group and non-governmental organization representatives, and volunteers to deliver information on water quality protection to their respective audiences and the general public utilizing the V.I. Home & Farm Water Quality Assessment (VI\*A\*Syst) program.

Developed and disseminated locally-oriented outreach materials related to water conservation, drinking water protection, wastewater disposal and best management practices for pollution prevention for delivery through the VI\*A\*Syst program, with particular emphasis on materials targeted towards youth and under-served audiences.

Educated homeowners and renters about residential environmental management including use of least-toxic household products and non-point source pollution control to protect aquatic ecosystems utilizing VI\*A\*Syst materials.

Developed publications, workshops, and presentations that relay information on the issues of watershed protection, non-point source pollution control, drinking water protection, and wastewater disposal and best management practices to reduce impacts to the general public.

Utilized the media to promote Water Quality programs through various methods, including, but not limited to, radio and television PSAs, television video spots, local talk shows (radio & TV), and videotapes of workshops, presentations, and symposia.

Identified and developed technical materials related to water conservation, drinking water protection watershed planning, and non-point source pollution control practices and systems for use by policy-makers and regulatory personnel, and disseminate information related to these topics through the V.I. Non-point Source Newsletter, NPS Update.

Provided technical assistance on a variety of topics, including but not limited to, erosion, sediment, and stormwater control; xeriscaping - incorporating native, drought-tolerant plants into the landscape; watershed planning; water quality assessment; drinking water protection; and environmental assessment, to government agencies, community groups, various areas of the private sector, and the general public.

Conducted watershed studies utilizing oceanographic and GIS technology to Investigate Effects of Land-based Pollutants on Water Quality and Marine Resources in cooperation with other UVI components Conservation Data Center (CDC), CES , V.I. Experimental Program to Stimulate Competitive Research (VI EPSCoR) and Center for Marine and Environmental Studies (CMES). Project goals are to further scientific research, promote educational outreach and improve natural resource management programs.

### **2. Brief description of the target audience**

Policy-makers and regulatory personnel, community groups, teachers and students, business community, non-governmental organizations, and the general public.

**3. How was eXtension used?**

eXtension was not used in this program

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2012	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	600	2300	280	550

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

**Patent Applications Submitted**

Year: 2012

Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2012	Extension	Research	Total
<b>Actual</b>	1	0	1

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- Education/Classes/Training in water quality protection and VI \* A \* Syst Program

Year	Actual
2012	1

**Output #2**

**Output Measure**

- Workshops / Presentations about water quality protection, less toxic household products and NPS BMP's through the VI \* A \* Syst Program, on-site waste water treatment, cistern care, and

watershed protection.

<b>Year</b>	<b>Actual</b>
2012	31

**Output #3**

**Output Measure**

- One on one consultations with residents, government employees, students

<b>Year</b>	<b>Actual</b>
2012	320

**Output #4**

**Output Measure**

- Tours of VI natural areas with students, community groups and others to raise awareness about watersheds and water quality protection.

<b>Year</b>	<b>Actual</b>
2012	4

**Output #5**

**Output Measure**

- Educational/research publications, articles, posters, newsletters, GIS maps related to non-point source pollution, on-site wastewater treatment, watersheds, VI \* A \* Syst, and protection of VI native plant communities.

<b>Year</b>	<b>Actual</b>
2012	3

**Output #6**

**Output Measure**

- PSAs

<b>Year</b>	<b>Actual</b>
2012	0

**Output #7**

**Output Measure**

- Fairs

<b>Year</b>	<b>Actual</b>
2012	8

**Output #8**

**Output Measure**

- TV/Media

<b>Year</b>	<b>Actual</b>
2012	6

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Awareness of the health risks associated with water quality impairment and water and wastewater treatment systems will increase, and 75 homeowners will consider installing or retrofitting their existing septic systems with improved packaged sewage treatment systems or alternative wastewater treatment systems.
2	Fifty (50) homeowners will request technical assistance with the evaluation of old septic systems; 20 homeowners will proactively pump their septic systems, and three (3) businesses will construct alternative wastewater treatment systems based on successful prototypes recommended by CES.
3	Educational materials, workshops, tours and other direct and indirect outreach methods will increase public knowledge of the characteristics and functions of aquatic ecosystems (guts, salt ponds, mangrove lagoons, bays and oceans) including their role within a watershed. Five (5) homeowners and/or natural resource managers will protect riparian and wetlands vegetation. Sixty five(65) clients will become aware of the VI laws protecting riparian and wetlands vegetation.
4	Requests for site visits and VI*A*SYST assessments and presentations will increase. 75 clients or more will each adopt at least one VI*A*Syst recommended practice such as the use of non-toxic household products, etc. Fifty (50) homeowners will improve cistern water quality by following CES recommendations.
5	At least twenty (20) clients will implement effective stormwater, erosion and sediment control practices and xeriscaping. Ten(10) VI Dept. of Public Works roadside maintenance crews will improve their roadside clearing methods to prevent soil erosion and sediment runoff.
6	Over 1000 VI youth will become aware of the vital connections between human activities and water quality, how land-based activities affect coastal water quality, and why watershed protection is important to them and their well-being. Youth and volunteer involvement in water quality protection and resource conservation will increase.
7	Information from watershed studies utilizing oceanographic and GIS technology will lead to five(5) specific recommendations for watershed residents and government agencies about how to reduce sediments and nutrients in stormwater runoff.

**Outcome #1**

**1. Outcome Measures**

Awareness of the health risks associated with water quality impairment and water and wastewater treatment systems will increase, and 75 homeowners will consider installing or retrofitting their existing septic systems with improved packaged sewage treatment systems or alternative wastewater treatment systems.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	2

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Nutrification and contamination of surface, groundwater and coastal waters from leaking septic systems is considered to be a major problem in the VI. Nonpoint Source Pollution from defective septic systems impacts human health and marine resources.

**What has been done**

Technical assistance was provided to a St. Thomas condominium homeowners association to facilitate the replacement of a defective septic system with a package onsite waste water treatment plant (OWTS). CES partnered the St. Croix Environmental Association, (SEA) the VI Waste Management Authority, and the VI Department of Planning and Natural Resources (DPNR) to educate the public about septic systems.

**Results**

Site plans for an alternative package OWTS were completed with assistance from CES.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
133	Pollution Prevention and Mitigation

## **Outcome #2**

### **1. Outcome Measures**

Fifty (50) homeowners will request technical assistance with the evaluation of old septic systems; 20 homeowners will proactively pump their septic systems, and three (3) businesses will construct alternative wastewater treatment systems based on successful prototypes recommended by CES.

### **2. Associated Institution Types**

- 1862 Extension

### **3a. Outcome Type:**

Change in Condition Outcome Measure

### **3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	37

### **3c. Qualitative Outcome or Impact Statement**

#### **Issue (Who cares and Why)**

Developers and architects seek technical information from CES about alternative OWTS systems. The Virgin Islands Department of Planning and Natural Resources (DPNR) referred architects, businesses, developers to CES for specific technical assistance with alternative OWTS installations.

#### **What has been done**

CES helped coordinate a USVI Alternative Onsite Wastewater Treatment System Design Training Class conducted by instructors from URI Onsite Wastewater Treatment Demonstration Center in partnership with the VI Div. of Environmental Protection and Waste Management Authority. CES provided technical assistance to a condo manager and engineer designing a package OWTS for a St. Thomas condominium. CES provided developers and engineers with alternative OWTS information during site visits.

#### **Results**

Thirty-one septic system installers/service providers and VI government personnel participated in the 2-day Alternative Onsite Wastewater Treatment Design Training Class on St. Thomas. All training class evaluations were favorable and participants indicated that the training was useful to them. Based on CES technical assistance a developer and engineer are considering adopting CES recommendations regarding the installation of a large package plant OWTS on an environmentally challenging site. Homebuilders were provided with information about septic system design based on guidelines developed by CES WQ Regional Project partners from the URI Onsite Wastewater Treatment Demonstration Center.

### **4. Associated Knowledge Areas**



<b>KA Code</b>	<b>Knowledge Area</b>
112	Watershed Protection and Management
133	Pollution Prevention and Mitigation

**Outcome #3**

**1. Outcome Measures**

Educational materials, workshops, tours and other direct and indirect outreach methods will increase public knowledge of the characteristics and functions of aquatic ecosystems (guts, salt ponds, mangrove lagoons, bays and oceans) including their role within a watershed. Five (5) homeowners and/or natural resource managers will protect riparian and wetlands vegetation. Sixty five(65) clients will become aware of the VI laws protecting riparian and wetlands vegetation.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	45

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Through direct and indirect methods, government agencies, NGOs, resource managers, property owners, educators, students, researchers and architects/engineers require basic and technical information about riparian and aquatic ecosystems, including how these ecosystems function within watersheds and are impacted by human activities.

**What has been done**

CES contributes to VI Forest Stewardship Program reports containing information about locally protected watercourses and wetlands that are distributed to landowners. Wetlands/watercourse data from studies conducted with CES assistance were available on websites. CES provided research teams with requested information on VI salt ponds and wetlands. The VI League of Women Voters and CES made recommendations to Magens Bay Authority about the impacts of road construction near a mangrove lagoon. CES partnered with SEA, DPNR, and the Nature Conservancy to provide information to properly owned developers, nonprofit organizations about impact of human activities on watersheds.

**Results**

Information from a draft field guide of wetlands plants developed by CES for the VI Wetland inventory Project (funded in 2010 by VI Division of Environmental Protection) is being incorporated into a CES website titled Useful Native Plants in VI Habitats. Property owners

enrolled in the VI Forest Stewardship Program were required to follow recommendations about wetlands and watercourse protection stipulated in reports and plans developed for individual properties; property owners also learned about the watersheds where their properties are located. Researchers from the University of Puerto Rico and the Woods Hole Ocean Observatory utilized information provided by CES to conduct soil core sampling in St. Thomas-St. John salt ponds.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
112	Watershed Protection and Management

**Outcome #4**

**1. Outcome Measures**

Requests for site visits and VI\*A\*SYST assessments and presentations will increase. 75 clients or more will each adopt at least one VI\*A\*Syst recommended practice such as the use of non-toxic household products, etc. Fifty (50) homeowners will improve cistern water quality by following CES recommendations.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	10

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Custodial professionals, business owners, school students, the general public and the natural environment can be exposed to negative effects caused by the use of toxic household products. Many residents on rely on maintaining healthy cistern catchments for their water supplies.

**What has been done**

Through its VI\*A\*SYST program, CES continues to make numerous presentations to the VI population promoting the use of non-toxic household products for protecting human health and the environment. Presentations were made to school groups, church congregations, scouts, businesses, maintenance professionals, government agencies and environmental groups. Cistern care also is promoted in these presentations and during individual consultations.

**Results**

The VI\*A\*SYST presentations continue to be very popular with all segments of the VI community. After attending VI\*A\*SYST presentations, many individuals indicated that they would stop using

toxic household products. Several attendees have referred others to CES for information on non-household products also after the airing of the TV shows persons requested more information. I know that persons have been buying much more of the non-toxic products as many of the stores have run out from time to time.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water
133	Pollution Prevention and Mitigation

#### Outcome #5

##### 1. Outcome Measures

At least twenty (20) clients will implement effective stormwater, erosion and sediment control practices and xeriscaping. Ten(10) VI Dept. of Public Works roadside maintenance crews will improve their roadside clearing methods to prevent soil erosion and sediment runoff.

##### 2. Associated Institution Types

- 1862 Extension

##### 3a. Outcome Type:

Change in Condition Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2012	20

##### 3c. Qualitative Outcome or Impact Statement

###### **Issue (Who cares and Why)**

To protect the V.I. environment, prevent economic loss and comply with governmental regulations, CES clients (resource managers, Public Works personnel, businesses, developers, environmental groups, property owners, etc.) need technical assistance with xeriscaping, stormwater erosion and sediment control.

###### **What has been done**

During site visits and phone consultations, CES provided several property owners, government regulators, resource managers and landscape specialists with information about control practices that mitigate soil erosion and sediment runoff, plant selections for xeriscaping and environmental landscaping. CES provided the St. Thomas Environmental Association and the Magens Bay Authority with information about what salt tolerant native trees could be installed along coastal Territorial Park roadways to slow stormwater runoff. A client who had a \$80,000 dollar estimate for a retaining wall was advised about the installation of several terraces held in place with gabion baskets which he has since installed.

**Results**

With recommendations provided by CES, salt-tolerant native coastal trees were successfully planted along the access road to Smith Bay Territorial Park by Magens Bay Authority and the St. Thomas-St. John Environmental Association. A St. Thomas store located in the coastal zone incorporated drought tolerant native plants into a landscaping plan to be used in a building construction project. Clients who requested information about "environmental landscaping" indicated that they would follow CES's recommendations regarding specific plant selections for various habitats. CES participation in the VI Dept. of Agriculture Forest Stewardship and Forest Legacy programs contributed to the preservation of large areas of native forest in targeted watersheds. One developer of a major development project in the CZM zone indicated that they would incorporate Best Management Practices and native plant selections recommended by CES' hands on training was provided for stakeholders. He invited staff back to see what he had done and photos were taken.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
104	Protect Soil from Harmful Effects of Natural Elements

**Outcome #6**

**1. Outcome Measures**

Over 1000 VI youth will become aware of the vital connections between human activities and water quality, how land-based activities affect coastal water quality, and why watershed protection is important to them and their well-being. Youth and volunteer involvement in water quality protection and resource conservation will increase.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	180

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

VI youth and their instructors need basic scientific information about the unique connections between land and sea and how human activities affect water quality. With the rapid urbanization in the VI, the youthful population will be the most affected by land-use impacts degrading water quality.

**What has been done**

CES provided graduate students in environmental management programs with technical assistance and information relating to research projects. Publications co-authored or co-researched CES publications continued to be used for instruction by educators and librarians. CES designed educational displays to appeal to younger students. CES conducted field trips to the coastland terrestrial environments illustrating the connection between land-based and marine resources. Youths in Methodist Camp were lectured in the functions of wetlands and waste management. They were then taken on a tour of the landfill and wetland.

**Results**

UVI's Marine and Environmental Management Program and Yale's Coastal and Watershed Management Program graduate students utilized information provided by CES in watershed research projects on St. Thomas, focusing on water quality monitoring in impacted St. Thomas gulches and watershed analysis pertaining to the effects of watershed activities on near shore resources, mainly coral reefs.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management

**Outcome #7**

**1. Outcome Measures**

Information from watershed studies utilizing oceanographic and GIS technology will lead to five(5) specific recommendations for watershed residents and government agencies about how to reduce sediments and nutrients in stormwater runoff.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	3

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Watershed residents, government agencies, resource managers, other partnering academic institutions require scientific information utilizing oceanographic and GIS technology in order to better understand the patterns of stormwater runoff and the impacts of sediment and nutrient-

laden runoff.

**What has been done**

CES has been referring to GIS maps produced in previous projects (that CES co-researched) to understand hydrological flow on various properties (i.e., homeowner sites, territorial parks, hotel/public beaches) and to identify where fresh and salt ponds are located in order to respond to client requests.

**Results**

Hydrological flow of sediment-laden stormwater runoff into various St. Thomas bays was investigated using GIS maps. Maps increased understanding of flow patterns and where aberrations were occurring because of changes in the landscape (i.e., roads, sewers, parking lots, etc.). Property owners engaged in earth change operations were able to better understand the pattern and consequences of stormwater runoff on various landscapes. Researchers were able to access salt ponds/wetlands in more densely forested areas because CES could provide them with locations determined through the use of GIS maps.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
112	Watershed Protection and Management

**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
- Populations changes (immigration, new cultural groupings, etc.)

**Brief Explanation**

Turnover is high in some VI Government agencies, mainly due to political elections and recent fiscal constraints at the governmental level. It is difficult to establish very effective long-term relationships that can result in policy changes or effective training. Employees in these agencies acknowledge the need for more comprehensive enforcement of environmental laws, but they are overextended and need additional staff support to effectively enforce existing regulations. They also acknowledge the need to produce new regulations regarding the onsite wastewater system installation and protection of various native forest communities in watersheds. Political pressures can impede with enforcement and the development of new regulatory policies. DPNR-DFW, DEP, and CZM have developed long-term partnerships with CES resulting in workshops, grants, client referrals and resource management initiatives. CES continues its productive association with the local EPA office.

## **V(I). Planned Program (Evaluation Studies)**

### **Evaluation Results**

CES communicated closely with VI governmental partners, NGOs, environmental groups and the business community. These clients responded favorably to the informal, mostly verbal, evaluation methods used by CES during all stages of program implementation. Post workshop evaluations were distributed, and evaluations were favorable. Research project reports and publications are peer-reviewed.

### **Key Items of Evaluation**

All key items of evaluation were used.

**V(A). Planned Program (Summary)**

**Program # 6**

**1. Name of the Planned Program**

Climate Change: Urban Forestry Program

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
123	Management and Sustainability of Forest Resources	20%			
124	Urban Forestry	80%			
	<b>Total</b>	100%			

**V(C). Planned Program (Inputs)**

**1. Actual amount of FTE/SYs expended this Program**

Year: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	1.6	0.0	0.0	0.0
Actual Paid Professional	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
52000	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
42000	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
6115	0	0	0

**V(D). Planned Program (Activity)**

**1. Brief description of the Activity**



Partnerships were established and strengthened with public and private agencies, and community leaders and groups to provide education, information, and technical advice to the general population. This was achieved through the use of publications, seminars, mass media, field days and exhibits as well as personal contacts.

**2. Brief description of the target audience**

The targeted audience was public and private landowners and agencies, community leaders and organizations, youth groups, and civic organizations.

**3. How was eXtension used?**

eXtension was not used in this program

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2012	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	776	3000	329	700

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

**Patent Applications Submitted**

Year: 2012  
 Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2012	Extension	Research	Total
Actual	0	0	0

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- Number of educational classes in tree identification

**Year Actual**

2012 3

**Output #2**

**Output Measure**

- Number of workshops/demonstrations in tree pruning

<b>Year</b>	<b>Actual</b>
2012	2

**Output #3**

**Output Measure**

- Number of educational classes in tree care

<b>Year</b>	<b>Actual</b>
2012	5

**Output #4**

**Output Measure**

- Number of one-on-one consultation with residents

<b>Year</b>	<b>Actual</b>
2012	123

**Output #5**

**Output Measure**

- Number of articles/publications on tree care and urban forest management

<b>Year</b>	<b>Actual</b>
2012	0

**Output #6**

**Output Measure**

- Number of fairs and exhibits displaying best management practices and other information pertaining to the Urban Forestry

<b>Year</b>	<b>Actual</b>
2012	3

**Output #7**

**Output Measure**

- Number of seminars on economic opportunities available through using and/or recycling forest resource

<b>Year</b>	<b>Actual</b>
2012	3

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Increase the number of homeowners, landowners, policy makers who become more aware of the potential economic, social, and environmental contributions of the urban and suburban forest by 10%
2	Increase the number of homeowners, residents and landowners, public and private agencies, and nonprofit organizations who increase their knowledge of the care and management of the urban forest by 10%
3	Increase the number of homeowners, landowners, municipalities who actively reduce, reuse, and recycle yard waste by 5%
4	Increase the number of residents who restore urban trees following hurricanes and tropical storms by 10%
5	Increase the number of landowners and residents who expand entrepreneurial opportunities from the urban and suburban forest resources by 10%

**Outcome #1**

**1. Outcome Measures**

Increase the number of homeowners, landowners, policy makers who become more aware of the potential economic, social, and environmental contributions of the urban and suburban forest by 10%

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	323

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Ensuring that the next generation develops an appreciation for the benefits of trees is important as urban development continues to reduce forested areas of the Virgin Islands CES staff provides information to schools and youth groups through publications, lectures and walking tours.

**What has been done**

CES staff conducted a walking tour of trees on a portion of the St. Thomas campus. The students at the Guy Benjamin School on St. John were provided a poster display and lecture on the benefits of trees and products that could be made from recycled trees. Two groups of young people were provided with an educational coloring book entitled "Trees are Good".

**Results**

Two hundred seventy-three sixty-eight (273) students and twenty (20) adults representing the Calvary Christian Academy, Montessori, and E. Benjamin Oliver Schools increased the knowledge of tree identification and the role of trees in the environment. One hundred five (105) students and two adults became more aware of how trees contribute to the social and environmental well-being of their schoolyard and home. Thirty-seven (37) youth ages 7-10 from the 4-H summer academy on St. Croix and St. Thomas became more aware of the role that trees play in their environment. The youth have in their new coloring book, an age appropriate reference for their library.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
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**Outcome #2**

**1. Outcome Measures**

Increase the number of homeowners, residents and landowners, public and private agencies, and nonprofit organizations who increase their knowledge of the care and management of the urban forest by 10%

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2012	376

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Many trees have been pruned severely because they were planted in the wrong location. As the tree grows, the branches and root systems interfere with utility lines, roof guttering, windows, sidewalks and building foundations. To correct the damage can be costly to the home owner or the business man or the government agency that has to make repairs. Sensitizing the Virgin Islands youth as to the importance of trees in the environment is important for the future of sustainable resource management. Providing age appropriate resources and educational opportunities is key to increasing awareness of the benefits of trees and effectively communicating best management practices.

**What has been done**

Extension staff assisted the UVI Queens Commemorative Committee in the selection and location of a Dog Almond Tree for 50th anniversary commemoration. Extension staff also provided instruction to the UVI staff on proper tree planting.

The Folk Life Festival on St. John provided Extension staff the opportunity to share information with the public on best practices for managing trees. Extension also presented a lecture and demonstration to 4-H summer academies on both islands about the care of trees.

**Results**

Six (6) members of the UVI Queens Commemorative Committee became more aware of the factors that are involved in selecting the right tree for the right place. Five (5) UVI Physical Plant grounds men increased their knowledge of site preparation and proper tree planting techniques.

Forty-eight (48) adults and eighty-seven (87) youth became more aware of the negative impact of cars repeatedly being parked under trees and how cavities result from poor pruning practices. One hundred eighty (180) youth and fifty (50) adults became more aware of the proper way of taking care of trees around their home and in public places especially as they pick kenep and other local fruits.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
123	Management and Sustainability of Forest Resources
124	Urban Forestry

#### Outcome #3

##### 1. Outcome Measures

Increase the number of homeowners, landowners, municipalities who actively reduce, reuse, and recycle yard waste by 5%

##### 2. Associated Institution Types

- 1862 Extension

##### 3a. Outcome Type:

Change in Condition Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2012	532

##### 3c. Qualitative Outcome or Impact Statement

###### **Issue (Who cares and Why)**

Yard waste including trees and tree parts continue to be a large percentage of the waste stream entering the territories landfills. Because of consent decrees issued by the federal government, the Waste Management Authority must close the existing landfills and develop alternative means of disposing of the waste stream. Trees, tree parts and other yard waste can be diverted from the waste stream turned into useful products such wood chips, mulch, and compost.

###### **What has been done**

The annual St. Thomas/St. John Agriculture and Food Fair provided CES staff with an opportunity to display a poster and interact with attendees about recycling fallen trees and tree parts for personal use and for profit. Charcoal, furniture, wood art, and wood chips were some of the products displayed that could be recycled from fallen trees. The students at the Guy Benjamin School on St. John were provided a poster display and lecture on the benefits of trees and products that could be made from recycled trees. CES participated in the annual Earth Day Celebration sponsored by the Friends of the National Park.

**Results**

Approximately 3000 persons attended the fair over the two days of the event with approximately 250 persons becoming more aware opportunities for reusing and recycling for fallen trees. One hundred five (105) students and two (2) adults from the Guy Benjamin School became more aware of how recycling trees and tree parts become a means of creating useful items or an opportunity to earn an income. The compost sample and compost bin display at the Earth Day celebration helped the approximately one hundred twenty-five (125) youth and fifty (50) adults increase their knowledge of how compost is made and became more aware of the benefits of compost.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
123	Management and Sustainability of Forest Resources
124	Urban Forestry

**Outcome #4**

**1. Outcome Measures**

Increase the number of residents who restore urban trees following hurricanes and tropical storms by 10%

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2012	100

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Tropical storms are a fact of life in the territory. Trees in general are negatively affected in some way depending on the severity of the storm. Urban trees in particular are adversely affected by storms because generally they are growing in less than ideal conditions thus, predisposing them to a higher risk of failure. If damaged trees aren't given corrective measures within a short time or have fallen trees aren't erected right away, then chances of survival begin to diminish as time goes on.

**What has been done**

Appearances on local talk shows were the primary means of disseminating general information to residents whose trees were damaged by storms. Home and site visits by CES staff were also



used to assist residents in recovering and preserving damaged and or fallen trees.

**Results**

It is hard to determine with any accuracy the amount of individual that actively were involved in restoring damaged and/or fallen trees. From observation, public and private maintenance crews, and nonprofit organizations were actively involved in tree restoration. Through onsite visits and telephone contacts, technical advice was provided to residents, landscapes crews, and any organization that was involved in forest restoration.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
123	Management and Sustainability of Forest Resources
124	Urban Forestry

**Outcome #5**

**1. Outcome Measures**

Increase the number of landowners and residents who expand entrepreneurial opportunities from the urban and suburban forest resources by 10%

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	410

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

The reuse and recycling of organic waste is a key strategy in reducing the volume of items entering our landfills. Turning recyclable products into money making opportunities is a way for individuals within our community to earn additional income or become full time entrepreneurs.

**What has been done**

CES sponsored the 6th Annual Virgin Islands Woodworkers Expo at the UVI Great Hall on the Albert Sheen campus on St. Croix. Ten (10) individuals representing all three islands participated in demonstrations of their woodworking skills, provided one-on-one exchanges, and sold items that were made from reclaimed trees and tree parts. During the expo, demonstrations were given by selected woodworkers showing how tree parts can be turned into valuable works of art.

**Results**

Over the three-day period, approximately four hundred (400) adults and students attended the expo. Attendees became more aware of the potential for earning additional dollars or making a full time living from woodworking.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
123	Management and Sustainability of Forest Resources

**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
- Populations changes (immigration, new cultural groupings, etc.)

**Brief Explanation**

Staff shortages and competing programmatic challenges resulted in less than maximum output which led to lower than expected outcomes.

**V(I). Planned Program (Evaluation Studies)**

**Evaluation Results**

One- on- one and small group interviews were administered at the workshops and public events. They provided a good picture of as to the effectiveness the lectures, poster presentations and publications. Follow up surveying at short term (3month) and long term (6-8 months) will still need to be administered in order to ascertain the level of behavioral changes that have occurred

**Key Items of Evaluation**

**V(A). Planned Program (Summary)**

**Program # 7**

**1. Name of the Planned Program**

Sustainable Energy

- Reporting on this Program

Reason for not reporting

The Virgin Islands Cooperative Extension Service is not reporting on this program because the Sustainable Energy Programs were incorporated in other planned programs such as the 4-H Summer Program and 4-H Youth Development Program.

**V(B). Program Knowledge Area(s)**

- 1. Program Knowledge Areas and Percentage

**V(C). Planned Program (Inputs)**

**1. Actual amount of FTE/SYs expended this Program**

Year: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	0.5	0.0	0.0	0.0
Actual Paid Professional	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
Actual Volunteer	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

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

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 Matching	1890 Matching	1862 Matching	1890 Matching
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 All Other	1890 All Other	1862 All Other	1890 All Other
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

**V(D). Planned Program (Activity)**

**1. Brief description of the Activity**

**2. Brief description of the target audience**

**3. How was eXtension used?**

{No Data Entered}

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2012	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: 2012

Actual: {No Data Entered}

**Patents listed**

{No Data Entered}

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2012	Extension	Research	Total
Actual	0	0	0

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- {No Data Entered}

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

**Outcome #1**

**1. Outcome Measures**

{No Data Entered}

**V(H). Planned Program (External Factors)**

**External factors which affected outcomes**

**Brief Explanation**

{No Data Entered}

**V(I). Planned Program (Evaluation Studies)**

**Evaluation Results**

{No Data Entered}

**Key Items of Evaluation**

{No Data Entered}

**V(A). Planned Program (Summary)**

**Program # 8**

**1. Name of the Planned Program**

Computer Training and Technology Program

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
903	Communication, Education, and Information Delivery	100%			
	<b>Total</b>	100%			

**V(C). Planned Program (Inputs)**

1. Actual amount of FTE/SYs expended this Program

Year: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	1.6	0.0	0.0	0.0
Actual Paid Professional	1.6	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
65000	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
70000	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

The Computer Training and Technology Program was advertised on radio and television.

Conducted eight weeks Basic Computer Training Courses that taught how to use Microsoft Windows, Microsoft Word, E-mail, and search for information using the World Wide Web.

**2. Brief description of the target audience**

The population consisted mainly of computer illiterate adults in the USVI that are from low income households. Also members of the limited resource program.

**3. How was eXtension used?**

eXtension was not used in this program

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2012	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	235	400	500	1500

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

**Patent Applications Submitted**

Year: 2012  
 Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2012	Extension	Research	Total
Actual	0	0	0

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- Conduct a seven-weeks basic computer training course designed to increase the participants' knowledge and usage of computer in Basic Computer Maintenance, Microsoft Word 2000, and E-mail/Internet.

**Year                      Actual**



2012 15

**Output #2**

**Output Measure**

- Conduct two days workshop on Internet communication.

<b>Year</b>	<b>Actual</b>
2012	4

**Output #3**

**Output Measure**

- Conduct four days workshops on Microsoft Excel

<b>Year</b>	<b>Actual</b>
2012	8

**Output #4**

**Output Measure**

- Conduct four days workshops on Microsoft Powepoint

<b>Year</b>	<b>Actual</b>
2012	8

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Participants will acquire/increase their knowledge and usage of Microsoft Window by 70%.
2	Participants will acquire/increase their knowledge and usage of Microsoft Word by 70%.
3	Participants will acquire/increase their knowledge and usage of E-mail by 70%.
4	Participants will acquire/increase their knowledge and usage of the Internet by 70%.
5	Participants will acquire/increase their knowledge and usage of Microsoft Excel by 70%.
6	Participants will acquire/increase their knowledge and usage of Microsoft Powerpoint by 70%.

**Outcome #1**

**1. Outcome Measures**

Participants will acquire/increase their knowledge and usage of Microsoft Window by 70%.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	93

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

There is a large population of computer illiterate adults. Some of these individuals need to acquire these computer skills in order to get employment to better their household income and to take advantage of new technology.

**What has been done**

Fifteen of the UVI CES eight-week Basic Computer Training Course were conducted. These classes teach how to use Microsoft Windows, Microsoft word, E-mail, and search for information using the World Wide Web.

**Results**

90% of individuals who participated indicated that they acquired/increased their knowledge and usage of Microsoft Windows.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
903	Communication, Education, and Information Delivery

**Outcome #2**

**1. Outcome Measures**

Participants will acquire/increase their knowledge and usage of Microsoft Word by 70%.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	89

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

There is a large population that does not know how to use MS Word. Microsoft Word is the most widely used word processing software. By acquiring or increasing their skills in MS Word, these individuals will be better equipped to seek employment or a promotion. They can also use MS Word in their day to day lives to make their tasks easier.

**What has been done**

Fifteen of the UVI CES eight-week Basic Computer Training Courses were conducted. These classes teach how to use Microsoft Windows, Microsoft Word, E-mail, and search for information using the World Wide Web.

**Results**

91% of the individuals who participated indicated that they acquire/increased their knowledge and usage of Microsoft Word.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
903	Communication, Education, and Information Delivery

**Outcome #3**

**1. Outcome Measures**

Participants will acquire/increase their knowledge and usage of E-mail by 70%.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	94

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

There is a large population that does not have and/or does not know how to use an e-mail account. These individuals can benefit from learning how to use an e-mail account as it can lead to saving money on post stamps and the ability to send information faster.

**What has been done**

Fifteen of the UVI CES eight-week Basic Computer Training Courses were conducted. these classes teach how to use Microsoft Windows, Microsoft Word, E-Mail, and search for information using the World Wide Web.

**Results**

97% of the individuals who participated indicated that they acquired/increased their knowledge and usage of E-mails.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
903	Communication, Education, and Information Delivery

**Outcome #4**

**1. Outcome Measures**

Participants will acquire/increase their knowledge and usage of the Internet by 70%.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	95

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

There is a large population that does not know how to use the internet. The benefits of using the internet are various, and the broad range of information it provides makes the internet a valuable tool in an individual's life. Individuals also can perform a variety of tasks using the internet such as shopping, banking, and paying bills.

**What has been done**

Four of the UVI CES Usefulness of the Internet workshops were conducted.

**Results**

92% of the individuals who participated in the workshops indicated that they acquired/increased their knowledge and usage of the internet.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
903	Communication, Education, and Information Delivery

**Outcome #5**

**1. Outcome Measures**

Participants will acquire/increase their knowledge and usage of Microsoft Excel by 70%.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	91

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

There is a large population that does not know how to use the MS Excel. MS Excel is a very useful application when creating budgets, keeping track of loan payments, and a number of other useful mathematical calculations.

**What has been done**

Eight workshops were conducted that focused solely on the uses of Microsoft Excel.

**Results**

97% of the individuals who participated indicated that they acquired/increased their knowledge and usage of MS Excel.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
903	Communication, Education, and Information Delivery

**Outcome #6**

**1. Outcome Measures**

Participants will acquire/increase their knowledge and usage of Microsoft Powerpoint by 70%.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	88

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

There is a large population that does not know how to use MS PowerPoint. MS PowerPoint is a very useful tool when giving presentations and can also be used for learning within the classroom. Individuals who utilize PowerPoint are often more captivating and engaging with their audience versus an individual who uses standard note cards.

**What has been done**

Eight workshops were conducted that focused solely on the uses of MS PowerPoint

**Results**

93% of the individuals who participated indicated that they acquired/increased their knowledge and usage of MS PowerPoint.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
903	Communication, Education, and Information Delivery

**V(H). Planned Program (External Factors)**

**External factors which affected outcomes**

- Natural Disasters (drought, weather extremes, etc.)
- Appropriations changes

**Brief Explanation**

**V(I). Planned Program (Evaluation Studies)**

**Evaluation Results**

Participants fill out a Pre and Post-Evaluation that focus on the knowledge they



acquired in the class.

**Key Items of Evaluation**

The evaluation showed that over 94% of students feel that the classes were useful and that they acquired new information that would help them in life.

**V(A). Planned Program (Summary)**

**Program # 9**

**1. Name of the Planned Program**

4-H Volunteer Development and Management Program

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	10%			
802	Human Development and Family Well-Being	65%			
803	Sociological and Technological Change Affecting Individuals, Families, and Communities	10%			
806	Youth Development	15%			
	<b>Total</b>	100%			

**V(C). Planned Program (Inputs)**

1. Actual amount of FTE/SYs expended this Program

Year: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	2.0	0.0	0.0	0.0
Actual Paid Professional	2.0	0.0	0.0	0.0
Actual Volunteer	2.0	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
63623	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
90000	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**

- Continued work on 4-H newsletter and other educational materials
- Held volunteer recruitment drives at three major Extension-wide events: World Food Day, St. Thomas/St. John Agriculture and Food Fair; and the VI Agriculture & Food Fair - St. Croix
- Conducted volunteer leadership workshops, presentations and demonstrations Oriented new teen and adult volunteers
  - Trained current volunteer leaders
  - Provided in-service training for 4-H/F&CS and CYFAR staff
  - Continued work on 4-H Volunteer Management framework

**2. Brief description of the target audience**

- Adults in general; low-income, at-risk, un- or underemployed adults residing in public/federally subsidized housing communities, and CYFAR clientele
- High school students in need of community service hours to fulfill graduation requirements
- Departments, agencies, clubs, and programs partnering with 4-H.

**3. How was eXtension used?**

eXtension was not used in this program

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2012	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	300	1500	220	750

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

**Patent Applications Submitted**

Year: 2012

Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

<b>2012</b>	<b>Extension</b>	<b>Research</b>	<b>Total</b>
<b>Actual</b>	0	0	0

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- Number of print media tools such as web pages, newsletters, brochures and fact sheets promulgated

<b>Year</b>	<b>Actual</b>
2012	3

**Output #2**

**Output Measure**

- Number of workshops, presentations and demonstrations conducted

<b>Year</b>	<b>Actual</b>
2012	36

**Output #3**

**Output Measure**

- Number of youth and adult volunteer leaders, 4-H staff and partners trained

<b>Year</b>	<b>Actual</b>
2012	41

**Output #4**

**Output Measure**

- Number of partnerships, collaborations or cooperative agreements formed

<b>Year</b>	<b>Actual</b>
2012	3

**Output #5**

**Output Measure**

- Number of youth and adults volunteers and staff participated in off-island leadership development opportunities

<b>Year</b>	<b>Actual</b>
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2012

0

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Number of organized 4-H clubs formed
2	Number of special interest or short-term groups formed
3	Number of organizational and infrastructure tools (policy and procedures manual, 4-H Leader's Organization, 4-H Advisory Council and Foundation) developed
4	Percentage of volunteers and staff adopting, implementing or utilizing effective leadership strategies:

**Outcome #1**

**1. Outcome Measures**

Number of organized 4-H clubs formed

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	6

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

The traditional 4-H club provides a safe, nurturing environment where youth can learn, grow and experience new things in partnership with competent caring adults. The club setting also fosters development of leadership, self-efficacy and belongingness. 4-H club members build the knowledge, skills and attitudes they need to be more successful in school, be more likely to make wise choices, and be more caring of their environment and those that they share it with.

**What has been done**

Teen and adult volunteers were trained on how to develop and manage 4-H clubs using the 4-H 101 curricula.

**Results**

Two (2) new clubs were established, one school-based and one community-based.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
806	Youth Development

**Outcome #2**

**1. Outcome Measures**

Number of special interest or short-term groups formed

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2012	2

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Over and above the traditional 4-H club, the use of special interest, short term and enrichment projects has proven to be a successful model and strategy to recruit both youth and adults.

**What has been done**

Special interest groups attract adults volunteers and youth members. Being able to advertise the subject matter as opposed to the philosophical basis for 4-H often provides the springboard for greater and continued 4-H involvement.

**Results**

The 4-H Youth Garden Project continues to be an exemplary special interest group in that it focuses on an area that is of interest to both youth and the community. In addition, it is a very popular interest area currently.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
806	Youth Development



**Outcome #3**

**1. Outcome Measures**

Number of organizational and infrastructure tools (policy and procedures manual, 4-H Leader's Organization, 4-H Advisory Council and Foundation) developed

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	0

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

The Virgin Islands 4-H Program continues to utilize 4-H program policy and guidelines from other states. Work continues to adopt policies and guidelines that reflect our needs, and that are culturally relevant and responsive to the local situation.

**What has been done**

Materials and manuals have been collected from six states and are currently being reviewed. Content is being compared and relevant information has been noted.

**Results**

We are currently referring to material published by USDA and from the 2011 version of 4-H 101.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
802	Human Development and Family Well-Being

**Outcome #4**

**1. Outcome Measures**

Percentage of volunteers and staff adopting, implementing or utilizing effective leadership strategies:

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	75

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Well-trained volunteers who understand that engaging youth in a safe, nurturing environment are the most important asset for a successful program. Helping adults tap into their hidden talents, and to transition from the more traditional role of purveyor of information to that of an exciting and enthusiastic facilitator and partner in the learning process is critical to the program's success.

**What has been done**

4-H 101 continues to provide the basic building blocks that leaders will need to build vibrant 4-H clubs. Working with volunteers to very deliberately incorporate the Essential Elements ? belonging, mastery, independence and generosity - into their club programs is ongoing. Volunteers have learned new strategies to ensure that their programs reflect these elements in meaningful and tangible ways.

**Results**

The Virgin Islands 4-H program will continue to develop and expand upon our volunteer leader training. A total of 29 adult volunteers and 12 teen leaders provided leadership for five 4-H clubs along with two special interest groups on St. Croix, and one 4-H club and one special interest group on St. Thomas.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
802	Human Development and Family Well-Being
806	Youth Development

### **V(H). Planned Program (External Factors)**

#### **External factors which affected outcomes**

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

#### **Brief Explanation**

The unpredictability of natural disasters can have an adverse effect on program growth. In addition, the current economic climate has present challenged in recruiting adult volunteer leaders. More and more, 4-H and other youth-serving agencies are at the mercy of cost-cutting measures and can often be the victim when potential adults may suddenly become unemployed.

### **V(I). Planned Program (Evaluation Studies)**

#### **Evaluation Results**

Formal evaluation has not been completed, anecdotal responses are positive.

#### **Key Items of Evaluation**

Evaluation is ongoing.

**V(A). Planned Program (Summary)**

**Program # 10**

**1. Name of the Planned Program**

A Healthy, Well-Nourished Population

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
701	Nutrient Composition of Food	20%			
703	Nutrition Education and Behavior	60%			
724	Healthy Lifestyle	20%			
	<b>Total</b>	100%			

**V(C). Planned Program (Inputs)**

1. Actual amount of FTE/SYs expended this Program

Year: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	2.7	0.0	0.0	0.0
Actual Paid Professional	2.7	0.0	0.0	0.0
Actual Volunteer	0.5	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
60000	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
80000	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

- Developed culturally sensitive nutrition and health education products and resources to be made available to professionals, students, and the public. The following are examples of the products and resources to be developed and made available for distribution:

- a beverage poster, brochure and/or flyer that lists the sugar and calorie content of commonly consumed beverages in the territory;

- a fruit and vegetable nutrient composition poster, brochure and/or flyer that highlights the nutritional value of local fruits and vegetables and will include the vitamin, mineral, and fiber content of local fruits and vegetables;

- a poster, brochure, and/or flyer detailing the sodium, fat, cholesterol, carbohydrate, and fiber content of commonly consumed local foods;

- a diabetes exchange list booklet that include local foods and beverages; and

- a culturally sensitive cookbook using local and familiar produce.

- Conducted disease specific workshops, short courses, seminars, and other educational activities focusing on nutrition education and behavior change modification.

- Recruited and trained staff and volunteers to deliver nutrition, diet, and health relevant information to the community.

- Developed and/or obtained culturally sensitive nutrition/health curriculum appropriate for school age children at all grade levels.

- Developed and maintained relationships with partners including government agencies, clinics, places of worship, public and private schools, senior citizen centers, and day care centers.

- Developed a web page that relays information on issues relating to the program.

## **2. Brief description of the target audience**

This program was directed at all U.S. Virgin Island residents. However, special attention was given to high risk groups such as residents diagnosed with diseases such as diabetes, hypercholesterolemia, hypertension, and obesity; senior citizens; and school age children.

## **3. How was eXtension used?**

eXtension was not used in this program

## **V(E). Planned Program (Outputs)**

### **1. Standard output measures**

2012	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	1120	4995	1250	5050

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

Year: 2012  
 Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2012	Extension	Research	Total
Actual	0	0	0

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- a. Number of workshops, classes, and demonstrations facilitated or conducted.

Year	Actual
2012	290

**Output #2**

**Output Measure**

- b. Number of volunteers recruited and trained to deliver nutrition education program.

Year	Actual
2012	3

**Output #3**

**Output Measure**

- c. Number of fair-type settings in which nutrition/health information will be presented.

Year	Actual
------	--------

2012 6

**Output #4**

**Output Measure**

- d. Number of web sites developed and maintained.

<b>Year</b>	<b>Actual</b>
2012	0

**Output #5**

**Output Measure**

- e. Number of nutrition and health education materials developed and made available to professionals, students, and the public.

<b>Year</b>	<b>Actual</b>
2012	2

**Output #6**

**Output Measure**

- e. Number of partnerships with agencies and organizations that will assist in improving the health practices of U.S. Virgin Islanders.

<b>Year</b>	<b>Actual</b>
2012	12

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Number of individuals who have indicated benefits from developed educational materials.
2	Percentage of adults adopting and maintaining at least one healthy lifestyle practice
3	Number of school age children learning basic nutrition information.
4	Percentage of children adopting and maintaining at least one healthy lifestyle practice.
5	Increase awareness among the general public of the relationship between food intake, physical fitness, stress management and disease prevention.
6	Number of individuals who report improvement in health status (e.g., lower blood sugar, hemoglobin A1c, and/or cholesterol level).



**Outcome #1**

**1. Outcome Measures**

Number of individuals who have indicated benefits from developed educational materials.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	260

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

The Virgin Islands continues to have high incidence and morbidity rates of cancer, diabetes and heart disease. Efforts are targeted at increasing the community's access to culturally relevant nutrition education materials to help reduce the morbidity and mortality rates in the Virgin Islands.

**What has been done**

Several efforts were undertaken to enhance the community's knowledge of healthy nutrition options. A tropical fruit poster continues to be widely requested. This poster contains nutrition information and copies of MyPyramid are also given to all clients/participants.

**Results**

During fiscal year 2011-2012 over 1025 copies of MyPyramid were distributed to various individuals and organizations.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
703	Nutrition Education and Behavior

**Outcome #2**

**1. Outcome Measures**

Percentage of adults adopting and maintaining at least one healthy lifestyle practice

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	150

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

In order to decrease the high mortality and morbidity rates from heart diseases, cardiovascular diseases, cancer and diabetes in the U.S.V.I. It is critical for Virgin Islands to adopt and maintain healthy lifestyle practices.

**What has been done**

Six to eight week nutrition education classes have been conducted in order to meet this goal with individuals from Head Start age through senior citizens.

**Results**

Eighty percent of the participants reported a positive change by adopting at least one healthy lifestyle practice. The practices included increased consumption of fruit, vegetables, grains and exercise.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
724	Healthy Lifestyle

**Outcome #3**

**1. Outcome Measures**

Number of school age children learning basic nutrition information.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	2002

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

In order to shape good eating habits at an early age ? emphasis was placed on school age children.

**What has been done**

Basic nutrition information was disseminated to children through a series of lessons over 6-8 weeks. Some of the series were conducted in the schools as part of a school enrichment program and others were conducted during summer programs.

**Results**

Youth participants received a pre/post measure to indicate changes in knowledge gained regarding basic nutrition information. Sixty-one percent (61%) of the participants were able to correctly answer the basic questions prior to the lessons, however by the end of the lessons; seventy-eight percent (78%) of the participants gave correct answers.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
703	Nutrition Education and Behavior
724	Healthy Lifestyle

**Outcome #4**

**1. Outcome Measures**

Percentage of children adopting and maintaining at least one healthy lifestyle practice.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	110

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

In light of the progressively worsening rate of childhood obesity, it is critical to inculcate youth with the information necessary for them to make healthy nutrition choices. Youth can also influence other family members creating a synergistic approach to healthy eating in family units.

**What has been done**

Youth received information healthy lifestyle practices information through targeted sessions in their respective schools and summer camp program.

**Results**

Youth reported at least one healthy lifestyle practice change as a result of the exposure to the information presented in the educational sessions.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
703	Nutrition Education and Behavior
724	Healthy Lifestyle

**Outcome #5**

**1. Outcome Measures**

Increase awareness among the general public of the relationship between food intake, physical fitness, stress management and disease prevention.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	14

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

It is paramount that the general public be informed regarding the relationship between food intake, stress management, physical fitness and disease prevention to offset the high incidence of preventable diseases in the Virgin Islands.

**What has been done**

Partnerships with the local Health Department and the Department of Human Services; as well as the university have created a collaborative efforts to enhance getting the healthy eating message out to the community.

**Results**

Educational session attendees indicated an increase in the awareness of the relationship of disease prevention, food intake and physical fitness.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
701	Nutrient Composition of Food
703	Nutrition Education and Behavior
724	Healthy Lifestyle

**Outcome #6**

**1. Outcome Measures**

Number of individuals who report improvement in health status (e.g., lower blood sugar, hemoglobin A1c, and/or cholesterol level).

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	95

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Health outcomes relative to improvement of blood pressure, hemoglobin A1c and cholesterol levels are critical markers in the Virgin Islands to prevent many diseases.

**What has been done**

Provision of educational information sessions were delivered in collaboration with the local Health and Human Services Departments.

**Results**

Formalized evaluation has not been undertaken to-date; however anecdotal results are positive.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
703	Nutrition Education and Behavior

**V(H). Planned Program (External Factors)**

**External factors which affected outcomes**

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Other (Cultural Environment)

**Brief Explanation**

The U.S. Virgin Islands lies in a hurricane prone zone; therefore all areas of life can be altered by

these natural disasters. The economy can also have an impact on residents' ability to implement certain healthy lifestyle practices due to limited discretionary income. The VI has a high unemployment rate which has been exacerbated by the closing of the oil refinery on St. Croix.

Cultural elements of the territory may adversely affect residents' willingness to change their dietary

customs which include high carbohydrate and high fat diets. These types of foods are deeply rooted in cultural traditions and readily available compared to healthier choices. Additionally, Virgin Islanders were physically active however that has been replaced with predominately sedentary lifestyles.

### **V(I). Planned Program (Evaluation Studies)**

#### **Evaluation Results**

Evaluation data is incomplete at this time.

#### **Key Items of Evaluation**

Evaluation data is incomplete at this time.

**V(A). Planned Program (Summary)**

**Program # 11**

**1. Name of the Planned Program**

Basic Food Safety Education - EFNEP and EFNEP Youth

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	65%			
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins	25%			
724	Healthy Lifestyle	10%			
	<b>Total</b>	100%			

**V(C). Planned Program (Inputs)**

1. Actual amount of FTE/SYs expended this Program

Year: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	2.8	0.0	0.0	0.0
Actual Paid Professional	2.8	0.0	0.0	0.0
Actual Volunteer	1.0	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
25000	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
25000	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
68004	0	0	0

**V(D). Planned Program (Activity)**



**1. Brief description of the Activity**

- Identified new locations to conduct classes.
- Recruited and trained staff and volunteers to deliver food safety information to EFNEP participants (adults and youth).
- Developed and obtained culturally sensitive food safety curriculum appropriate for EFNEP participants (adults and youth).
- Developed and maintained relationships with partners including government agencies, clinics, places of worship, public and private schools, senior citizen centers, and day care centers.
- Continued working on development of a web page that relays information on issues relating to the program.

**2. Brief description of the target audience**

The program targets all U.S. Virgin Islanders but especially low income individuals who are responsible for preparing the family's meal, school age children, and pregnant teens and adults.

**3. How was eXtension used?**

eXtension was not used in this program

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2012	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	150	5050	800	5800

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

**Patent Applications Submitted**

Year: 2012

Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

<b>2012</b>	<b>Extension</b>	<b>Research</b>	<b>Total</b>
<b>Actual</b>	0	0	0

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- Number of 6-8 week class series conducted for EFNEP participants (adults and youth)

<b>Year</b>	<b>Actual</b>
2012	15

**Output #2**

**Output Measure**

- Number of volunteers recruited and trained to deliver food safety program

<b>Year</b>	<b>Actual</b>
2012	2

**Output #3**

**Output Measure**

- Number of fair-type settings in which food safety information will be presented

<b>Year</b>	<b>Actual</b>
2012	4

**Output #4**

**Output Measure**

- Number of web sites developed and maintained

<b>Year</b>	<b>Actual</b>
2012	0

**Output #5**

**Output Measure**

- Number of partnerships with agencies and organizations that will assist in improving the food safety practices of U.S. Virgin Islanders

<b>Year</b>	<b>Actual</b>
2012	10

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Number of adults learning basic food safety information
2	Percentage of adults adopting and maintaining at least one food safety practice
3	Number of school age children learning basic food safety information
4	Percentage of children adopting and maintaining at least one food safety practice
5	Increase awareness among the EFNEP participants about food safety issues related to personal hygiene, food storage, food preparation, and food handling
6	Increase awareness among the EFNEP participants about food safety issues related to eating away from home (e.g., restaurants, mobile food vans, food booths) and purchasing food from street vendors (e.g., fish)

## **Outcome #1**

### **1. Outcome Measures**

Number of adults learning basic food safety information

### **2. Associated Institution Types**

- 1862 Extension

### **3a. Outcome Type:**

Change in Knowledge Outcome Measure

### **3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	150

### **3c. Qualitative Outcome or Impact Statement**

#### **Issue (Who cares and Why)**

Because of the tropical climate, the Virgin Islands has many risk factors for food borne illnesses. This coupled with unpredictable power outages, purchasing and preparation practices and inappropriate in-home storage creates a ripe environment for food borne illnesses. Education to prevent this occurrence is direly needed to minimize the possibility of this becoming a major health problem.

#### **What has been done**

Basic food safety information continues to be disseminated through demonstrations, experiential activities, lectures and classes. Topics covered through these modalities included the importance of proper personal hygiene, food handling and storage, and food preparation to prevent food borne illnesses. The importance of thawing meats properly and using a thermometer to determine the internal temperature of meats is stressed especially during holiday seasons.

#### **Results**

Over 74 % of participants correctly indicated the proper method of thawing frozen meats.

### **4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins
724	Healthy Lifestyle

**Outcome #2**

**1. Outcome Measures**

Percentage of adults adopting and maintaining at least one food safety practice

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	55

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Individuals enrolled in EFNEP and others attending food safety lectures and demonstrations needed to adopt and maintain at least one food safety practice, for example ? washing hands and surfaces often, avoiding cross-contamination, refrigerating food promptly and cooking food at the proper temperature to help prevent food borne illnesses.

**What has been done**

Basic food safety information was disseminated to adults through a series of lessons over a 6-8 week period. Basic food safety information was also dispensed at fair-type activities.

**Results**

Self-report data suggests some adoption of safety related practices learned after the conclusion of instruction.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
703	Nutrition Education and Behavior
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins
724	Healthy Lifestyle

**Outcome #3**

**1. Outcome Measures**

Number of school age children learning basic food safety information

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	750

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Because school aged youth are highly susceptible to food borne illness, special effort is needed to keep them safe by teaching basic food safety information, for example, importance of washing hands thoroughly, avoiding cross-contamination, refrigerating food promptly and cooking food at the proper temperature.

**What has been done**

Basic food safety information was disseminated to children through a series of lessons over a 6-8 week period. Sites included schools as a part of the school enrichment program; and the others were conducted during summer programs. Basic food safety information was also distributed at fair-type settings.

**Results**

A pre-post measure was administered to participants. More than sixty-five percent (65%) of the youth answered questions correctly before receiving requisite information. Afterwards, eighty-two percent (82%) answered questions correctly.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
703	Nutrition Education and Behavior
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins
724	Healthy Lifestyle

**Outcome #4**

**1. Outcome Measures**

Percentage of children adopting and maintaining at least one food safety practice

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	0

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Youth enrolled in EFNEP and those attending food safety lectures and demonstrations need to adopt and maintain at least one food safety practice such as washing hands and surfaces often, avoiding cross-contamination, refrigerating food promptly, and cooking food at proper temperatures.

**What has been done**

Basic food safety information was disseminated to youth through a series of 6-8 week lessons. In addition, basic food safety information was shared at fair-type settings.

**Results**

No data is available at this time.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
703	Nutrition Education and Behavior
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins
724	Healthy Lifestyle

## **Outcome #5**

### **1. Outcome Measures**

Increase awareness among the EFNEP participants about food safety issues related to personal hygiene, food storage, food preparation, and food handling

### **2. Associated Institution Types**

- 1862 Extension

### **3a. Outcome Type:**

Change in Knowledge Outcome Measure

### **3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	325

### **3c. Qualitative Outcome or Impact Statement**

#### **Issue (Who cares and Why)**

Individuals enrolled in EFNEP and those attending food safety lectures and demonstrations need to be aware of the importance of washing hands and surfaces often, avoiding cross-contamination, refrigerating food promptly, and cooking food at proper temperatures.

#### **What has been done**

Basic food safety information was disseminated through a series of weekly lessons and at fairs.

#### **Results**

EFNEP participants indicated an increased awareness of the importance of concern and care regarding food safety issues, i.e. food storage and preparation, food handling and personal hygiene. Both youth and adults attended the 6- 8 week series of lessons.

### **4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
703	Nutrition Education and Behavior
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins
724	Healthy Lifestyle



**Outcome #6**

**1. Outcome Measures**

Increase awareness among the EFNEP participants about food safety issues related to eating away from home (e.g., restaurants, mobile food vans, food booths) and purchasing food from street vendors (e.g., fish)

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	105

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

The Virgin Islands has many risk factors for food borne illness outbreaks including the tropical climate, unpredictable power outages, and street vendors.

**What has been done**

Basic food safety information was disseminated through a series of weekly lessons.

**Results**

There is no data available at this time.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
703	Nutrition Education and Behavior
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins
724	Healthy Lifestyle

**V(H). Planned Program (External Factors)**

**External factors which affected outcomes**

- Natural Disasters (drought, weather extremes, etc.)
- Other (Cultural Environment)

**Brief Explanation**

Natural disasters continue to affect program outcomes due to the unpredictability of floods, hurricanes, etc.

**V(I). Planned Program (Evaluation Studies)**

**Evaluation Results**

No data available at this time.

**Key Items of Evaluation**

No data available at this time.

**V(A). Planned Program (Summary)**

**Program # 12**

**1. Name of the Planned Program**

Marketable Skills for Limited Resource 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	75%			
802	Human Development and Family Well-Being	15%			
806	Youth Development	10%			
	<b>Total</b>	100%			

**V(C). Planned Program (Inputs)**

1. Actual amount of FTE/SYs expended this Program

Year: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	1.9	0.0	0.0	0.0
Actual Paid Professional	1.9	0.0	0.0	0.0
Actual Volunteer	1.0	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
64000	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
79903	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**

- Conducted workshops and demonstrations to promote the different FCS program offerings. Set up volunteer recruitment booths at World Food Day, St. Thomas/St. John Agriculture and Food Fair, and the V.I. Agriculture and Food Fair (St. Croix).

- Provided orientation, training and professional development for volunteers, partners, 4-H/Family and Consumer Sciences/CYFAR staff, and CES personnel.

- Utilized multi-media outlets to promote FCS programs to attract potential clientele.

- Conducted workshops and short courses that help low-income, at-risk audiences build knowledge, skills and attitudes that will positively impact their quality of life.

- Collaborated with government departments, non-profit agencies, community-based programs, and special interest groups to recruit, train and support 4-H volunteer development.

### **2. Brief description of the target audience**

- Current and newly recruited FCS participants,

- Low-income, at-risk, un- or underemployed adults residing in public/federally subsidized housing communities, and Children, Youth & Families at-Risk clientele.

- Clientele and staff being served through fellow UVI, CES and AES programs.

- Clientele referred from Department of Human Services, Department of Labor - Unemployment Office; V.I. Housing Authority- Tenant Services Office, and other agencies working with similar audiences.

- Parents of current 4-H club members and summer program participants.

- Youth and adults (general public) responding to multi-media 4-H volunteer campaign,

- Youth and adults indicating interest in FCS programs at World Food Day and fairs.

- Departments, agencies, clubs, and programs working with FCS.

### **3. How was eXtension used?**

eXtension was not used in this program

### **V(E). Planned Program (Outputs)**

#### **1. Standard output measures**

2012	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	699	2455	25	709

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

Year: 2012  
 Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2012	Extension	Research	Total
Actual	0	0	0

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- Number of short courses conducted

Year	Actual
2012	5

**Output #2**

**Output Measure**

- Number of workshops facilitated as part of "Women at the Crossroads" short course

Year	Actual
2012	25

**Output #3**

**Output Measure**

- Number of special interest workshops conducted

Year	Actual
------	--------

2012 4

**Output #4**

**Output Measure**

- Number of youth, volunteers, staff and partners trained

<b>Year</b>	<b>Actual</b>
2012	125

**V(G). State Defined Outcomes****V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Through participation in Basic Clothing Construction Short Courses, participants will develop knowledge and awareness of sewing machine parts, basic tools and equipment, fabric line and design, measuring techniques, use of patterns, and glossary of terms
2	Through participation in Basic Clothing Construction Short Courses, participants will learn how to baste, stitch, trim and finish seam allowances using a serger, put in hems and waist bands, apply zippers, insert elastic, insert darts, and make button holes. Acquisition of these skills will allow participants to construct at least one simple outfit resulting in personal savings
3	As a result of completing the Basic Clothing Construction Short Course, 75% of participants will enroll in the Intermediate/Advanced level of this course. In addition to using basic skills developed in the basic course, participants will learn how to apply pockets and collars, put in linings, use more detailed patterns, and incorporate more difficult fabrics. Their skills and interest level will allow them to realize a savings and to use their skills to enhance their personal income by sewing for others
4	Through participation in the Crafts, Cultural Arts and Home Decorations Short Courses, participants will become aware of natural resources and recyclable items that can be used to make attractive handiwork and decorations for the home. Skills developed will include heat applications, designing of appliques, use of adhesives, creativity and layout, project finishing, and glossary of terms
5	As a result of their training and interest in this area, participants will provide outreach to and train church, school and youth group members about the personal and financial benefits of using recycled materials
6	Through participation in Crafts, Cultural Arts and Home Decorations Short Courses, participants will learn how to construct or assemble a variety of projects that can be used to beautify the home and serve as gifts. Additional personal income will be generated through either word-of-mouth sales or by establishing their own small home-based business
7	Through 'Women at the Crossroads', participants will develop knowledge of workforce preparation, personal development, personal finances, women's health and wellness issues, leadership and volunteerism
8	Through 'Women at the Crossroads' participants will prepare a letter of application, build a personal resume, conduct a mock interview, complete a job application template and assemble a personal portfolio in preparation for an actual entry level employment interview
9	Through 'Women at the Crossroads', participants will explore the impact that poise, personality, personal appearance, positive attitude and self-confidence have on enhancing family and workforce dynamics. As a result of their experiences, participants will select and model appropriate dress, and prepare and present a personal goals statement:
10	Through 'Women at the Crossroads', participants will develop a personal budget, establish a checking account, develop a living will and explore the benefits of investing
11	Through 'Women at the Crossroads', participants will learn about health issues impacting women, complete personal health screenings, identify nutritious foods and practice healthy eating habits
12	Through 'Women at the Crossroads', participants will build leadership skills needed to become effective volunteer leaders
13	As a result of graduating and being certified through the 'Women at the Crossroads' series, participants will successfully enter the workforce and/or improve their quality of living

## **Outcome #1**

### **1. Outcome Measures**

Through participation in Basic Clothing Construction Short Courses, participants will develop knowledge and awareness of sewing machine parts, basic tools and equipment, fabric line and design, measuring techniques, use of patterns, and glossary of terms

### **2. Associated Institution Types**

- 1862 Extension

### **3a. Outcome Type:**

Change in Knowledge Outcome Measure

### **3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	70

### **3c. Qualitative Outcome or Impact Statement**

#### **Issue (Who cares and Why)**

The enhancement of skills is important regarding basic clothing construction classes. This will provide an opportunity for residents which will allow for supplemental income generation and an increase in their purchasing power.

#### **What has been done**

Workshops were provided as well as short courses and summer sessions.

#### **Results**

Participants continued to request more classes, others reported increasing their earning power.

### **4. Associated Knowledge Areas**

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



**Outcome #2**

**1. Outcome Measures**

Through participation in Basic Clothing Construction Short Courses, participants will learn how to baste, stitch, trim and finish seam allowances using a serger, put in hems and waist bands, apply zippers, insert elastic, insert darts, and make button holes. Acquisition of these skills will allow participants to construct at least one simple outfit resulting in personal savings

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	28

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Community members enhanced their skills to supplement their incomes and increased their marketability.

**What has been done**

Staff provided workshops, short courses, summer camp sessions and individual instruction.

**Results**

Participants continue to express enthusiasm regarding receiving additional courses to enhance their entrepreneurial goals.

**4. Associated Knowledge Areas**

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

**Outcome #3**

**1. Outcome Measures**

As a result of completing the Basic Clothing Construction Short Course, 75% of participants will enroll in the Intermediate/Advanced level of this course. In addition to using basic skills developed in the basic course, participants will learn how to apply pockets and collars, put in linings, use more detailed patterns, and incorporate more difficult fabrics. Their skills and interest level will allow them to realize a savings and to use their skills to enhance their personal income by sewing for others

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	225

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Residents who enrolled in the clothing construction course increased their knowledge and skills to enhance their marketability and increased self-sufficiency.

**What has been done**

Community participants who enrolled in the beginner's course progressed to the intermediate/advanced level.

**Results**

Participants completed all requirements for the clothing construction projects.

**4. Associated Knowledge Areas**

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

**Outcome #4**

**1. Outcome Measures**

Through participation in the Crafts, Cultural Arts and Home Decorations Short Courses, participants will become aware of natural resources and recyclable items that can be used to make attractive handiwork and decorations for the home. Skills developed will include heat applications, designing of appliques, use of adhesives, creativity and layout, project finishing, and glossary of terms

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	40

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Participants made household items to increase their home decorating skills and income producing ability and position.

**What has been done**

Participants requested advanced courses after completion of the items required.

**Results**

Additional information was requested regarding future classes.

**4. Associated Knowledge Areas**

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

**Outcome #5**

**1. Outcome Measures**

As a result of their training and interest in this area, participants will provide outreach to and train church, school and youth group members about the personal and financial benefits of using recycled materials

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	139

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

The entire community benefits from learning to be more energy efficient by increasing their awareness of the importance of protecting the environment through recycling.

**What has been done**

Both youth and adult participants learned how to recycle materials and to utilize this knowledge in their homes and general community.

**Results**

Participants requested additional information to share with family and friends.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
801	Individual and Family Resource Management
802	Human Development and Family Well-Being
806	Youth Development

**Outcome #6**

**1. Outcome Measures**

Through participation in Crafts, Cultural Arts and Home Decorations Short Courses, participants will learn how to construct or assemble a variety of projects that can be used to beautify the home and serve as gifts. Additional personal income will be generated through either word-of-mouth sales or by establishing their own small home-based business

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	310

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

The entire community benefits from increased income generated by any residents.

**What has been done**

Educational sessions and training were designed to increase the income generating potential of low-income residents.

**Results**

Low-income residents acquired marketable skills to increase their income generating potential.

**4. Associated Knowledge Areas**

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

**Outcome #7**

**1. Outcome Measures**

Through 'Women at the Crossroads', participants will develop knowledge of workforce preparation, personal development, personal finances, women's health and wellness issues, leadership and volunteerism

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	36

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

The entire community benefits from a well prepared workforce.

**What has been done**

Workshops and individual instruction focused on personal development and work preparedness.

**Results**

An increase in the ability to successfully interview for jobs and enhanced confidence in resume writing skills and other workforce preparedness skills were garnered by participants.

**4. Associated Knowledge Areas**

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

**Outcome #8**

**1. Outcome Measures**

Through 'Women at the Crossroads' participants will prepare a letter of application, build a personal resume, conduct a mock interview, complete a job application template and assemble a personal portfolio in preparation for an actual entry level employment interview

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	36

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

The entire community benefits from job preparedness and related skill acquisition of its residents who can become productive citizens.

**What has been done**

Educational sessions were held to enhance employability potential of low income residents.

**Results**

Participants completed necessary skill requirements to secure employment.

**4. Associated Knowledge Areas**

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

**Outcome #9**

**1. Outcome Measures**

Through 'Women at the Crossroads', participants will explore the impact that poise, personality, personal appearance, positive attitude and self-confidence have on enhancing family and workforce dynamics. As a result of their experiences, participants will select and model appropriate dress, and prepare and present a personal goals statement:

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	36

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Participants increase their employability potential which benefits the entire community.

**What has been done**

Presentations, educational sessions and workshops were conducted to prepare residents for employment.

**Results**

All participants completed requirements to prepare for increased probability of self and other employment.

**4. Associated Knowledge Areas**

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



**Outcome #10**

**1. Outcome Measures**

Through 'Women at the Crossroads', participants will develop a personal budget, establish a checking account, develop a living will and explore the benefits of investing

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	24

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Participants are better able to be self-sufficient as they develop financial strategies aimed at family survival.

**What has been done**

Educational sessions were conducted on checking accounts, investing and budgeting.

**Results**

Participants expressed an interest in learning more about financial management issues.

**4. Associated Knowledge Areas**

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

**Outcome #11**

**1. Outcome Measures**

Through 'Women at the Crossroads', participants will learn about health issues impacting women, complete personal health screenings, identify nutritious foods and practice healthy eating habits

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	35

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

With high incidences of heart disease, diabetes and related illnesses, it is critical that residents receive knowledge and skill to engage in good nutrition practices.

**What has been done**

Presentations and workshops on improving healthy eating habits, diabetes, etc. were conducted.

**Results**

Participants indicated that they adopted healthier eating habits and food preparation practices.

**4. Associated Knowledge Areas**

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

**Outcome #12**

**1. Outcome Measures**

Through 'Women at the Crossroads', participants will build leadership skills needed to become effective volunteer leaders

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	15

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

The better prepared for leadership the populace becomes, the better the positive community outcomes.

**What has been done**

Stress was placed on the importance of good leadership skills and volunteerism.

**Results**

Some participants continue to volunteer in CES programs and demonstrate leadership skills in various community settings. programs.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
801	Individual and Family Resource Management
802	Human Development and Family Well-Being
806	Youth Development

**Outcome #13**

**1. Outcome Measures**

As a result of graduating and being certified through the 'Women at the Crossroads' series, participants will successfully enter the workforce and/or improve their quality of living

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	35

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Quality of life is directly impacted by gainful employment and impacts the entire community.

**What has been done**

Participants sought employment with more confidence, especially related to computer skills.

**Results**

Participants ability and confidence in seeking employment increased.

**4. Associated Knowledge Areas**

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

**V(H). Planned Program (External Factors)**

**External factors which affected outcomes**

- Natural Disasters (drought, weather extremes, etc.)
- Economy

**Brief Explanation**

The downturn in the national economy has had a negative effect on the local situation. Additionally, the closing of the largest private employer on St.Croix has exacerbated the negative economic reality of the islands.

**V(I). Planned Program (Evaluation Studies)**

**Evaluation Results**

Pre-post instruments have been utilized; anecdotal responses have been highly favorable.

**Key Items of Evaluation**

Focus continues to be placed on informal methods of data collection and follow-up interview sessions.

**V(A). Planned Program (Summary)**

**Program # 13**

**1. Name of the Planned Program**

4-H Summer Program

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
806	Youth Development	100%			
	<b>Total</b>	100%			

**V(C). Planned Program (Inputs)**

**1. Actual amount of FTE/SYs expended this Program**

Year: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	2.8	0.0	0.0	0.0
Actual Paid Professional	2.8	0.0	0.0	0.0
Actual Volunteer	4.0	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
81742	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
200000	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
57082	0	0	0

**V(D). Planned Program (Activity)**

**1. Brief description of the Activity**

- Worked on development of a digital newsletter
- Prepared appropriate curricula and gathered all materials, supplies and equipment needed to carry out objectives
- Promoted other 4-H/Youth Development opportunities
- Provided orientation and training for summer staff and volunteers.
- Conducted parenting workshops to assist parents in developing nurturing relationships with their children, improving communications and supporting their development as a whole child.
- Utilized multi-media outlets to promote 4-H/Youth Development programs to attract potential youth.
- Supported summer counselors/staff in implementation of selected programs.
- Facilitated closing program to showcase program accomplishments.
- Introduced photography as a creative outlet and entrepreneurial option.
- Due to budgetary constraints, recruited and placed five(5) youth volunteers to serve as Jr. Counselors

## **2. Brief description of the target audience**

- School-aged youth residing in the Virgin Islands,
- 4-H members, volunteer leaders and their parents
- Public and non-public high school students needing community service hours to fulfill graduation requirements,
- Clientele and staff being served through fellow UVI, CES and AES programs
- High school and college students seeking summer employment
- Educators interested in summer employment

## **3. How was eXtension used?**

eXtension was not used in this program

## **V(E). Planned Program (Outputs)**

### **1. Standard output measures**

2012	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	500	3000	750	6500

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

Year: 2012  
 Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2012	Extension	Research	Total
Actual	0	0	0

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- Number of digital newsletters promulgated

Year	Actual
2012	0

**Output #2**

**Output Measure**

- Number of workshops, presentations and demonstrations facilitated or conducted

Year	Actual
2012	72

**Output #3**

**Output Measure**

- Number of parents attending workshop(s)

Year	Actual
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2012 75

**Output #4**

**Output Measure**

- Number of teachers and students employed

<b>Year</b>	<b>Actual</b>
2012	42

**Output #5**

**Output Measure**

- Number of students completing/meeting community service requirements as counselors in training

<b>Year</b>	<b>Actual</b>
2012	5



**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Number of children enrolled and reported on ES-237 as 4-H members in summer camp programs
2	Number of youth learning basic computer competencies
3	Number of youth building entrepreneurship skills
4	Percentage of youth adopting healthy lifestyles strategies
5	Percentage of participants constructing container or small gardens
6	Percentage of youth demonstrating leadership and life skills
7	Percentage of employees reporting successful use of counselor training and experience in future employment endeavors
8	Number of youth demonstrating knowledge gained, skills learned, positive attitudes

**Outcome #1**

**1. Outcome Measures**

Number of children enrolled and reported on ES-237 as 4-H members in summer camp programs

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	221

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

The UVI-CES 4-H Academy continues to be the summer day program of choice for more children than can be accommodated. This six-week, day camp experience provides over 200 V.I. youth with a safe, secure option that provides educational activities in fun, stimulating environment. Enrollment inquiries indicate that the enrollment could easily be increased on St. Croix.

**What has been done**

Each summer, enrollment data is compiled and analyzed. Key indicators of program success include a return enrollment rate of over 45% and 18 youth who have attended for at least six consecutive summers. In addition, enrollment data provides a strategy for recruiting new volunteers and 4-H members as evidenced by 26 new 4-H members and 1 new volunteer leader joining 4-H.

**Results**

The 2012 UVI-CES Summer Academy provided 221 youth, ages 5-14, residing on St. Croix and St. Thomas with a safe, secure, nurturing environment in which to learn and grow. Additionally, the summer program provided employment for 13 highly-qualified teachers, and over 13 high school and college students hired as Jr. Counselors; 5 youth served as volunteer Jr. Counselors.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
806	Youth Development

## **Outcome #2**

### **1. Outcome Measures**

Number of youth learning basic computer competencies

### **2. Associated Institution Types**

- 1862 Extension

### **3a. Outcome Type:**

Change in Condition Outcome Measure

### **3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	221

### **3c. Qualitative Outcome or Impact Statement**

#### **Issue (Who cares and Why)**

The UVI-CES 4-H Summer Academy and the 4-H program recognize the importance of providing youth the opportunity to develop basic computer skills. As a result, 4-H continues its commitment to offering Computer Literacy as a special for all summer camp participants.

#### **What has been done**

Using the 4-H CES curricula, all campers receive age-appropriate instruction in basic computer literacy to include parts of the computer, key boarding, software application and Internet safety. In addition to exposing all campers to basic computer skills, 36 youth receive more advanced training and robotics was introduced with one of the younger camp groups.

#### **Results**

In partnership with 4-H and CES staff, the computer lab produced a total of 12 weekly newsletters. In addition, computer lab counselors facilitated an internet safety station as part of Progressive Agriculture Safety Day. Older youth, ages 11-14 (36) used internet surfing skills to find information regarding their chosen area of interest. This information, along with other software, was used to develop three interactive games, individual Excel spreadsheets and six group PowerPoint presentations.

### **4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
806	Youth Development

**Outcome #3**

**1. Outcome Measures**

Number of youth building entrepreneurship skills

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	221

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Entrepreneurship ranks right alongside the national 4-H mission mandates as an area that is very relevant for the Virgin Islands community especially in light of the recent economic downturn. The unemployment rate on St. Croix hovers around 16% and the economic forecast for the territory is not encouraging. Every opportunity to equip our young people with skills and experiences that they can use to improve their quality of life is imperative.

**What has been done**

Through Mini-Society®, a widely recognized experiential entrepreneurship program supported by the Kaufman Foundation, campers are able to gain first-hand knowledge about being young entrepreneurs. Mini-Society®, like the computer lab, is offered as a special focus group so that youth get a firsthand experience of learning a business and enlarging their horizon regarding career possibilities.

**Results**

All youth enrolled in the 2012 UVI-CES 4-H Summer Academy took part. During Mini-Society®, campers experienced fundamental entrepreneurial concepts like supply and demand, established their own cities, crafted flags, and designed and printed currency. In addition, youth became entrepreneurs in their respective communities by researching business opportunities, providing services or producing goods. Youth practiced leadership and decision-making by serving in different roles in each society. Marketing and sales came to life at Market Day where businesses advertised and sold their goods and services to an audience that included parents, family and friends and the general public. Proceeds from sales were later used to bid on highly desirable goods and services at the close of the program.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

#### Outcome #4

##### 1. Outcome Measures

Percentage of youth adopting healthy lifestyles strategies

##### 2. Associated Institution Types

- 1862 Extension

##### 3a. Outcome Type:

Change in Knowledge Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2012	221

##### 3c. Qualitative Outcome or Impact Statement

###### **Issue (Who cares and Why)**

Following the Healthy Living national mission mandate, 4-H recognizes the importance of the health and well-being of the whole child. This is particularly important when considering the many serious health challenges (heart disease, diabetes, obesity) confronted by VI children, youth and families.

###### **What has been done**

In partnership with the Expanded Food and Nutrition Education Program (EFNEP) and state nutrition assistance Program (SNAP-Ed) staff, the UVI-CES 4-H Summer Academy offers all campers a Healthy Lifestyles program. Using USDA curricula and several locally adapted lessons, campers learn basic nutrition information, how to snack healthy, and the importance of increasing daily activity levels to promote good health. This component is further augmented by offering campers conflict resolution and other healthy behaviors.

###### **Results**

Older youth (35) used their new knowledge and skills to prepare a healthy, well-balanced meal for their parents at the close of camp. In addition, at least five campers developed a business based on new skills learned in this program.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
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806 Youth Development

**Outcome #5**

**1. Outcome Measures**

Percentage of participants constructing container or small gardens

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	65

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

The 4-H program is keenly aware that gardening promotes good health, increases activity levels, and heightens awareness of the importance of consuming fresh, locally grown produce. It is further understood that gardening provides an excellent platform for promoting science literacy and offering hands-on learning opportunities across curricula.

**What has been done**

Gardening was an integral component of two camps, one on St. Croix, the other on St. Thomas. Campers were able to create container gardens that they took home with them at the close of the summer program.

**Results**

A community garden bed was established on St. Thomas and on St. Croix. Container gardens were painted and planted out with over 40 assorted vegetable seedlings some of which were propagated by the campers.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
806	Youth Development

**Outcome #6**

**1. Outcome Measures**

Percentage of youth demonstrating leadership and life skills

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	7

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

As an integral component of the Virgin Islands 4-H program, UVI-CES 4-H Summer Academy participants are encouraged to explore and develop critical leadership and life skills in a safe, nurturing environment. Opportunities abound for campers to serve as leaders, hone communication skills, and practice making good decisions. Guest speakers address conflict resolution and other interpersonal communication strategies while others may target substance abuse and resiliency.

**What has been done**

The UVI-CES 4-H Summer Academy staff are trained to ensure that the essential elements of 4-H such as belonging, mastery, independence and generosity are easily recognized in our program.

**Results**

The closing program is a showcase for youth who have explored and strengthened leadership and life skills. Two outstanding individuals served as master/mistress of ceremonies. Each camp decided on, planned and delivered a closing number that celebrated what they learned over the course of the summer. In addition, campers displayed project work and demonstrated their skills as part of the program.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
806	Youth Development

**Outcome #7**

**1. Outcome Measures**

Percentage of employees reporting successful use of counselor training and experience in future employment endeavors

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	75

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

The UVI-CES 4-H Summer Academy employs over 40 counselors. The skills learned while serving in a lead educator role or working as a member of the team proved to be useful for many employees when they return to 4-H, seek employment elsewhere or when developing a resume.

**What has been done**

Prior to the opening of summer camp, new hires receive training in teamwork and teambuilding, understanding the ages and stages of child development, employing constructive discipline and using the experiential learning model. Five youth volunteers joined paid staff to serve as Junior Counselors.

**Results**

The 4-H staff is routinely called upon to serve as references for future employment opportunities. In addition, over 65% of staff return from year to year.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
806	Youth Development



**Outcome #8**

**1. Outcome Measures**

Number of youth demonstrating knowledge gained, skills learned, positive attitudes

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	221

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

The UVI-CES 4-H Summer Academy is committed to promoting academic excellence through experiential learning while at the same time embracing the social and emotional development of the whole child.

**What has been done**

Counselor selection, orientation and training are geared toward assembling a team of educators who understand that providing a positive relationship with an understanding adult provides the foundation for children to grow and learn. Special attention is maximizing support for experiential learning opportunities.

**Results**

Every child enrolled in the UVI-CES 4-H Summer Academy had ample opportunity to demonstrate knowledge gained, skills learned and attitudes changed. This is often showcased during Parents Day and again at the closing program.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
806	Youth Development

**V(H). Planned Program (External Factors)**

**External factors which affected outcomes**

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

**Brief Explanation**

Unanticipated natural disasters can severely disrupt programming.

**V(I). Planned Program (Evaluation Studies)**

**Evaluation Results**

Incomplete data collected at present.

**Key Items of Evaluation**

Incomplete data collected at present.

**V(A). Planned Program (Summary)**

**Program # 14**

**1. Name of the Planned Program**

4-H/Youth Development

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
608	Community Resource Planning and Development	5%			
724	Healthy Lifestyle	5%			
801	Individual and Family Resource Management	5%			
802	Human Development and Family Well-Being	15%			
803	Sociological and Technological Change Affecting Individuals, Families, and Communities	5%			
806	Youth Development	65%			
	<b>Total</b>	100%			

**V(C). Planned Program (Inputs)**

1. Actual amount of FTE/SYs expended this Program

Year: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	2.0	0.0	0.0	0.0
Actual Paid Professional	1.5	0.0	0.0	0.0
Actual Volunteer	10.0	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
75259	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
90000	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**

- Work continues on development of a 4-H newsletter and educational materials.
- Conducted workshops, presentations and demonstrations regarding 4-H opportunities.
- Facilitated educational displays and activities at World Food Day, St. Thomas/St. John Agriculture and Food Fair, and the VI Agriculture and Food Fair (St. Croix).
- Coordinated 4-H club officer training in leadership, public speaking and teamwork.
- Organized major positive youth development programs to include: 4-H Youth Super Chef Competition; 4-H National Youth Science Day Experiment; 4-H Youth Garden Competition and the 4-H Youth Ornament Festival.
- Work continues on the development of program/project development committees charged with reviewing needs assessment, prioritized program initiatives within designated interest clusters, identifying potential volunteers, identifying program resources, serving as trainers, mentors and evaluators, and acting as 4-H program advocates.
- Continue to recruit and engage UVI students as mentors and volunteers for the 4-H program.
- Work continues with high school-aged volunteers and migrating their involvement into a 4-H Honor/Ambassador Club.

**2. Brief description of the target audience**

- School-aged youth residing in the Virgin Islands
- Public and non-public high school students needing community service hours to fulfill graduation requirements

- UVI students

**3. How was eXtension used?**

eXtension was not used in this program

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2012	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	475	2900	1650	6500

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

**Patent Applications Submitted**

Year: 2012  
Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2012	Extension	Research	Total
<b>Actual</b>	0	0	0

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- Number of print media tools such as web pages, newsletters, brochures and fact sheets promulgated

**Year**                      **Actual**  
2012                              2

**Output #2**

**Output Measure**

- Number of workshops, presentations and demonstrations conducted

<b>Year</b>	<b>Actual</b>
2012	27

**Output #3**

**Output Measure**

- Number youth and adult volunteer leaders, and 4-H members trained in club leadership, organization and management

<b>Year</b>	<b>Actual</b>
2012	37

**Output #4**

**Output Measure**

- Number of partnerships, collaborations or cooperative agreements formed

<b>Year</b>	<b>Actual</b>
2012	1

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Number of children enrolled and reported on ES-237 as 4-H members in organized clubs, special interest or short-term projects groups and school enrichment programs
2	Percentage of units fulfilling 4-H charter guidelines and receiving official charters
3	Number of youth enrolled in special interest or short-term projects formed as a result of program development committee work groups
4	Percentage of clubs adopting, implementing or utilizing effective leadership strategies
5	Percentage increase in male enrollment
6	Percentage of youth adopting leadership and life skills
7	Percentage of clubs or units engaging in community service activities
8	Number of 4-H members volunteering to serve as club officers, committee members, junior leaders or teen leaders, or advisory council representatives
9	Number of youth demonstrating knowledge gained, skills learned, positive attitudes adopted by taking part in fairs, 4-H Project Expo and other events designed to showcase individual achievement and accomplishments

## **Outcome #1**

### **1. Outcome Measures**

Number of children enrolled and reported on ES-237 as 4-H members in organized clubs, special interest or short-term projects groups and school enrichment programs

### **2. Associated Institution Types**

- 1862 Extension

### **3a. Outcome Type:**

Change in Condition Outcome Measure

### **3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	643

### **3c. Qualitative Outcome or Impact Statement**

#### **Issue (Who cares and Why)**

The Virgin Islands 4-H Program continues to promote the national community-based 4-H club model to achieve similar lasting benefits for local youth enrolled in 4-H. Enrollment data assists 4-H locally and nationally in delivering quality, positive youth development programs. Several studies have documented that youth involved in organizations like 4-H do better in school, are more motivated to help others, feel safe trying new things, build a strong sense of self-worth, and develop lasting friendships.

#### **What has been done**

According to enrollment data reported on the 2012 ES-237, the Virgin Islands 4-H Program engaged 643 youth, ages 5-18 in a variety of 4-H delivery modes; however the largest 4-H membership was in organized 4-H clubs (195 youth). Young people also participated in 4-H via organized in school clubs (38); after-school 4-H clubs (161); and military 4-H groups (28). In addition to the traditional 4-H club model, 186 youth experience 4-H as part of short-term or special interest groups. The special interest model has provided some new successes that are being researched when considering the most effective engagement strategy.

#### **Results**

In 2012 the Virgin Islands 4-H Program recognized six (6) 4-H clubs and two special interest groups on St. Croix, and one (1) 4-H club, and one (1) special interest group on St. Thomas enrolling 643 school-aged youth. In 2011, work continues to document the positive impact 4-H and the Children, Youth & Families At-Risk afterschool program has on enhancing decision-making, self-efficacy and a sense of belonging.

### **4. Associated Knowledge Areas**



**KA Code**    **Knowledge Area**  
806            Youth Development

**Outcome #2**

**1. Outcome Measures**

Percentage of units fulfilling 4-H charter guidelines and receiving official charters

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	75

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

The charter process helps ensure uniformity between 4-H clubs and helps fulfill national 4-H mission mandates. By definition, a 4-H club is an organized group of at least five youth from three different families who meet regularly with adult volunteers or 4-H staff for a lasting, progressive series of educational experiences. The purpose of a 4-H club is to provide Virgin Islands youth the opportunity to experience the essential elements of 4-H: belonging, mastery, independence and generosity. Clubs also foster educational opportunities tied to UVI as an integral part of the land grant university knowledge base. Hallmarks of a vibrant club system include; caring, trained adult volunteer leaders; youth/adult partnerships; youth leadership and engagement; a yearly club plan that guides decision-making; opportunities for members to be involved in age-appropriate, and interest-based learning through 4-H projects. In applying for and receiving an official club charter, 4-H clubs employ the experiential learning model by bringing caring adult leaders together with interested youth to make decisions, put together a yearly plan, conduct project work and implement club and personal goals.

**What has been done**

Although not all Virgin Islands clubs have fully completed the charter process, clubs have been fully engaged in the process. Both adult and teen leaders have been trained using the 4-H 101 curricula to guide them through the club development process. Staff have also been trained on how to effectively incorporate the essential elements of 4-H into after school, in-school and special interest programs. Project selection is often framed by culturally relevant experiences as evidenced by the continued success of the 4-H Carnival Troupe, a short term, experiential learning opportunity for youth to engage in costume design and choreography resulting in an award winning entry in the annual Virgin Islands Carnival Parade.

**Results**

Five of seven (71% ) of Virgin Islands 4-H clubs have successfully met the following 4-H club charter minimum requirements: identified at least two adult volunteer leaders; enrolled at least five members from three different families; elected youth officers; conducted at least six meetings annually; and provided educational programming via 4-H project work based on member interest. In addition, based on observation and participation in 4-H workshops events and activities throughout the year, these clubs successfully: use experiential learning effectively; provide a safe healthy physical and emotional environment for members; include as part of their yearly club plan, opportunities to learn and apply life skills such as leadership, citizenship, community service and public speaking; utilized juried 4-H curricula to support individual project experiences representing the 4-H mission mandates; Offer projects relevant to UVI as a land grant institution and foster positive youth/adult partnerships.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
806	Youth Development

**Outcome #3**

**1. Outcome Measures**

Number of youth enrolled in special interest or short-term projects formed as a result of program development committee work groups

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2012	186

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

In many regions, using the traditional 4-H club model has provided increasing challenges. Even though this model still remains the preferred 4-H delivery mode in the Virgin Islands, short-term or special interest programming have also served as an effective tool to engage youth in positive youth development opportunities.

**What has been done**

Specific areas of interest are often one of the major motivational factors in determining whether a young person will want to join. The 4-H Carnival Troupe is a good example of interest-motivated involvement. Other special interest or short-term projects include: robotics (technology and engineering); 4-H Christmas ornament festival (communications and expressive arts); citizenship and leadership (community service); and foods (4-H youth chef competition) and the 4-H youth garden competition. High school youth continue to provide a lucrative target audience interested in pursuing a variety of interest areas to meet community service requirements.

### Results

Over 180 youth enrolled in short-term or special interest projects. Examples of special interest programming success includes: receipt of funding to purchase Lego robotics kits utilized by three junior high schools; 40 youth representing eight schools enhancing their knowledge of the culinary arts; and 58 youth taking part in the award winning 4-H Carnival Troupe.

## 4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

### Outcome #4

#### 1. Outcome Measures

Percentage of clubs adopting, implementing or utilizing effective leadership strategies

#### 2. Associated Institution Types

- 1862 Extension

#### 3a. Outcome Type:

Change in Condition Outcome Measure

#### 3b. Quantitative Outcome

Year	Actual
2012	50

#### 3c. Qualitative Outcome or Impact Statement

##### Issue (Who cares and Why)

The 4-H Program locally and nationally is dedicated to helping young people develop the knowledge, skills and attitudes that will enable them to become competent, caring leaders. In partnership with caring adults, youth are provided a safe, nurturing environment where they can feel comfortable practicing leadership skills in a variety of ways. In addition, teens needing community service hours, provide a great target audience.

##### What has been done

Workshops focusing on leadership for both youth and adults continue to be an integral component of training initiatives. Clubs are expected to foster youth leadership by electing club officers, supporting youth involvement in committees and engaging youth in decision-making. Teens are frequently engaged in planning major 4-H events, i.e. World Food Day, 4-H Christmas Ornament Festival, Ag Olympics, and Easter Family Fun Day where with guidance from staff and partners, they are tasked with planning, implementing, and evaluating major events.

**Results**

This past year, there were a total of 41 elected 4-H club officers representing six clubs. Club officers presided over monthly business meetings. Twenty-nine (29) teens earned just under 1,000 community service hours for their leadership efforts in event planning.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
806	Youth Development

**Outcome #5**

**1. Outcome Measures**

Percentage increase in male enrollment

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2012	6

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

It has been challenging recruiting and maintaining males and keeping them involved. Yet many of the territory's ills and challenges are related to males who disproportionately drop out of school and often become entangled in the criminal justice system. Those who can find employment find that they are working at low level jobs due to limited opportunities. Many have some affiliation with the legal system. The limited number of young people in the university system reflects the myriad of difficulties males experience in the school system. Emphasis must continue on efforts to meet this difficult, complex challenge.

**What has been done**

Efforts have been made to work with the university sponsored special program to engage young men in youth development efforts. Also, efforts continue through the Children, Youth and Families At-Risk Program and the 4-H Summer Academy.

**Results**

As indicated earlier, results are not as fruitful as desired, but some slow minimal progress is occurring as indicated above.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
806	Youth Development

**Outcome #6**

**1. Outcome Measures**

Percentage of youth adopting leadership and life skills

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	75

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Developing positive life skills continues to be the primary focus of 4-H programming. Helping 4-H members become caring, contributing and conscientious members of their community provides a common thread woven into 4-H clubs, program, events and activities.

**What has been done**

Both youth and adults receive training on how to effectively promote belonging, mastering, independence and generosity - the essential elements - in their 4-H programs.

**Results**

Over 200 4-H members completed educational displays, gave illustrated talks, showed animals at the fair and demonstrated that they learned at major events such as World Food Day, the V. I. Agriculture and Food Fair, and 4-H project Expo. Once again, 4-H members used what they learned in their 4-H project work to develop award winning science projects for their school

science fair.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
806	Youth Development

**Outcome #7**

**1. Outcome Measures**

Percentage of clubs or units engaging in community service activities

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2012	100

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Performing community service speaks to one of the essential elements in 4-H: generosity. Youth need to feel that their lives have meaning and purpose. By taking part in community service and citizenship projects, youth connect to their communities and learn the importance of giving back.

**What has been done**

The 4-H club charter process requires that clubs plan and implement at least one (1) community service project as part of their yearly club plan. In addition, volunteer leaders, members and 4-H clubs and groups are invited to partner with the 4-H office to conduct citizenship and community service outreach efforts.

**Results**

Youth, schools and 4-H clubs joined hands to collect two tons of non-perishable foods for our annual World Food Day, Kids CAN make a Difference Food Drive. Clubs on St. Thomas continue a rich tradition of community service; 4-Hers create and present a highly interactive program for residents of the Lucinda Millin and Queen Louise Home for the Aged to kick off the Christmas holiday season.

**4. Associated Knowledge Areas**

**KA Code**    **Knowledge Area**  
806            Youth Development

**Outcome #8**

**1. Outcome Measures**

Number of 4-H members volunteering to serve as club officers, committee members, junior leaders or teen leaders, or advisory council representatives

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	28

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

One benchmark of program success is the willingness of older youth to step up and assume leadership roles. The Virgin Islands 4-H Program has a rich history of teen leadership that has been bolstered by the current community service hour requirement for graduation from local high schools.

**What has been done**

Teens continue to volunteer for a wide array of leadership responsibilities in their clubs, on committees, or with extracurricular organizations and groups.

**Results**

Currently, there are 12 teens serving in various roles. In partnership with adult volunteers, three teen leaders provided leadership for Robotics, Cloverbuds and Beginning Foods Project.

**4. Associated Knowledge Areas**

**KA Code**    **Knowledge Area**  
803            Sociological and Technological Change Affecting Individuals, Families, and Communities  
806            Youth Development

## **Outcome #9**

### **1. Outcome Measures**

Number of youth demonstrating knowledge gained, skills learned, positive attitudes adopted by taking part in fairs, 4-H Project Expo and other events designed to showcase individual achievement and accomplishments

### **2. Associated Institution Types**

- 1862 Extension

### **3a. Outcome Type:**

Change in Condition Outcome Measure

### **3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	238

### **3c. Qualitative Outcome or Impact Statement**

#### **Issue (Who cares and Why)**

Speaking in front of an audience, whether it be parents, fellow club members or a panel of judges helps young people build self-confidence, poise and critical communication skills. Preparing a project demonstration, presenting an educational display or exhibiting their work provide an excellent means for a 4-H member to reflect on their accomplishments and to celebrate all that they have learned.

#### **What has been done**

The 4-H office facilitates 4-H member displays during major events such as National 4-H Week and World Food Day in the fall, 4-H Project Expo in the spring, and district agriculture and food fairs.

#### **Results**

During the V.I. Agriculture and Food Fair, eight youth presented project demonstrations at a 4-H booth; 11 members took part in rabbit and poultry fitting and showmanship and presented eight small animal handling demonstrations. Over 40 4-H members conducted a variety of educational displays, illustrated talks and hands on demonstrations during National 4-H Week, National 4-H Youth Science Day, World Food Day, and 4-H Project Expo.

## **4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
724	Healthy Lifestyle
803	Sociological and Technological Change Affecting Individuals, Families, and Communities



**V(H). Planned Program (External Factors)**

**External factors which affected outcomes**

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

**Brief Explanation**

Unexpected power outages, water shortages, government worker lay-offs and cuts in salaries adversely affected the program progress in this past year.

**V(I). Planned Program (Evaluation Studies)**

**Evaluation Results**

Incomplete evaluation data to-date.

**Key Items of Evaluation**

Planned evaluation includes pre/post test measures and informal methods.

**V(A). Planned Program (Summary)**

**Program # 15**

**1. Name of the Planned Program**

Eastern Caribbean Extension Outreach and Interchange

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
603	Market Economics	10%			
606	International Trade and Development	10%			
903	Communication, Education, and Information Delivery	80%			
	<b>Total</b>	100%			

**V(C). Planned Program (Inputs)**

**1. Actual amount of FTE/SYs expended this Program**

Year: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	1.2	0.0	0.0	0.0
Actual Paid Professional	1.2	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
42112	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
52112	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**

Professional linkages were established with agricultural organizations in the Eastern Caribbean. Shortcourses, workshops, and training sessions were conducted for agricultural specialists, youth leaders and volunteers. Extension specialists provided consultations on food and nutrition programs, sustainable agriculture, horticulture, and livestock production and management. Breeding animals were exchanged with other islands through the Breeders Exchange Program. Work continues on the directory of individuals and institutions in agricultural research and development in the Eastern Caribbean. Proceedings, newsletters and other publications were published. CES assisted in the planning and execution of international and regional meetings for CFCS and CACHE.

**2. Brief description of the target audience**

The target audience of this program will be extension specialists, extension agents, district supervisors, extension educators and research scientists in the Eastern Caribbean. Producers and farm operators will also be targeted for this program. Regional institutions, homemakers and youth will also be targeted.

**3. How was eXtension used?**

eXtension was not used in this program

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2012	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	1200	2000	300	1500

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

**Patent Applications Submitted**

Year: 2012

Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2012	Extension	Research	Total
<b>Actual</b>	0	0	0

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- Agricultural linkages will be established with five organizations in the Eastern Caribbean countries.

<b>Year</b>	<b>Actual</b>
2012	2

**Output #2**

**Output Measure**

- International and regional workshops will be coordinated.

<b>Year</b>	<b>Actual</b>
2012	4

**Output #3**

**Output Measure**

- Proceedings, newsletters and other publications will be published for CFCS, CACHE, and CARAPA.

<b>Year</b>	<b>Actual</b>
2012	2

**Output #4**

**Output Measure**

- Update and expand directory of individuals and institutions in agricultural research in the Eastern Caribbean.

<b>Year</b>	<b>Actual</b>
2012	1

**Output #5**

**Output Measure**

- Animal breeding stock will be exchanged between countries in the Eastern Caribbean.

<b>Year</b>	<b>Actual</b>
2012	315

**Output #6**

**Output Measure**

- Extension specialists will provide consultation on sustainable agriculture, horticulture and livestock production and management.

<b>Year</b>	<b>Actual</b>
2012	5

**Output #7**

**Output Measure**

- Provide forum for training youth leaders and volunteers (amount of youth trained).

<b>Year</b>	<b>Actual</b>
2012	300

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Agricultural linkages established with regional organizations
2	Interantional and regional workshops coordinated
3	Amount of animal breeding stock exported to Eastern Caribbean countries
4	Directory of individuals and institutions in agricultural research in the Eastern Caribbean
5	Proceedings, newsletters and other publications published for CFCS, CACHE, and CARAPA

**Outcome #1**

**1. Outcome Measures**

Agricultural linkages established with regional organizations

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2012	2

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Agricultural scientists in the Caribbean region need to establish a good network to promote agriculture and find solutions to agricultural problems.

**What has been done**

Regional meetings were held for CFCS and CACHE.

**Results**

Regional networks were established among scientists.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
606	International Trade and Development
903	Communication, Education, and Information Delivery

**Outcome #2**

**1. Outcome Measures**

Interantional and regional workshops coordinated

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	5

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Agricultural scientists in the Caribbean need a forum for exchange of information and coordination of regional projects.

**What has been done**

Three regional meetings were held.

**Results**

Over 315 agricultural scientists were able to get together with their peers.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
606	International Trade and Development
903	Communication, Education, and Information Delivery

**Outcome #3**

**1. Outcome Measures**

Amount of animal breeding stock exported to Eastern Caribbean countries

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure



### 3b. Quantitative Outcome

Year	Actual
2012	315

### 3c. Qualitative Outcome or Impact Statement

#### Issue (Who cares and Why)

Improved breeding stock is needed to improve animal livestock development in the Caribbean.

#### What has been done

Three hundred and fifteen breeding stocks were shipped to St. Eustatius, St. Martin, Dominica, and the British Virgin Islands.

#### Results

The high quality breeding stock had been instrumental in the improvement of breeding stock on these Caribbean islands, thereby, increasing productivity.

### 4. Associated Knowledge Areas

KA Code	Knowledge Area
603	Market Economics
606	International Trade and Development

### Outcome #4

#### 1. Outcome Measures

Directory of individuals and institutions in agricultural research in the Eastern Caribbean

#### 2. Associated Institution Types

- 1862 Extension

#### 3a. Outcome Type:

Change in Condition Outcome Measure

#### 3b. Quantitative Outcome

Year	Actual
2012	1

#### 3c. Qualitative Outcome or Impact Statement

#### Issue (Who cares and Why)

An updated regional directory of individual and institutions in agricultural researchers is needed in the Eastern Caribbean.

**What has been done**

A directory of scientists and institutions has been established and maintained.

**Results**

This has made it easier for people in the Caribbean to find other scientists working on projects that they are interested in, finding results, and the proper personnel to find solutions to their problems.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
903	Communication, Education, and Information Delivery

**Outcome #5**

**1. Outcome Measures**

Proceedings, newsletters and other publications published for CFCS, CACHE, and CARAPA

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	1

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Assistance is needed by regional organizations in publishing newsletters, proceedings, and other publications.

**What has been done**

Assistance was provided to CFCS in the publication of their annual proceedings.s

**Results**

Proceedings were digitized and provided to members.

#### **4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
903	Communication, Education, and Information Delivery

#### **V(H). Planned Program (External Factors)**

##### **External factors which affected outcomes**

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Government Regulations

##### **Brief Explanation**

Economic downturn continues to affect coordination of programs on most islands.

#### **V(I). Planned Program (Evaluation Studies)**

##### **Evaluation Results**

Complete formal evaluation is still in progress.

##### **Key Items of Evaluation**

**V(A). Planned Program (Summary)**

**Program # 16**

**1. Name of the Planned Program**

Childhood Obesity

- 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	80%			
724	Healthy Lifestyle	20%			
	<b>Total</b>	100%			

**V(C). Planned Program (Inputs)**

1. Actual amount of FTE/SYs expended this Program

Year: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	1.0	0.0	0.0	0.0
Actual Paid Professional	0.5	0.0	0.0	0.0
Actual Volunteer	0.5	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
27000	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
27000	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
4000	0	0	0

**V(D). Planned Program (Activity)**

1. Brief description of the Activity

- Identified new locations to conduct classes.
- Recruited and trained staff and volunteers to deliver child nutrition information to SNAP-ED and

EFNEP participants (adults and youth)

- Developed and/or obtained culturally sensitive childhood nutrition curriculum appropriate for SNAP-ED and EFNEP participants (adults and youth).
- Developed and maintained relationships with partners including government agencies, clinics, places of worship, public and private schools, senior citizen centers, and day care centers.

**2. Brief description of the target audience**

The program targets all U. S. Virgin Islanders but especially low income individuals who are responsible for preparing the family's meals, school age children and youth meals.

**3. How was eXtension used?**

eXtension was not used in this program

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2012	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	1120	498	1199	605

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

**Patent Applications Submitted**

Year: 2012  
 Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2012	Extension	Research	Total
<b>Actual</b>	0	0	0

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- Number of 6-8 week class series conducted for SNAP-ED and EFNEP participants (adults and youths)

<b>Year</b>	<b>Actual</b>
2012	145

**Output #2**

**Output Measure**

- Number of volunteers recruited and trained to deliver nutrition education as related to prevention of childhood obesity

<b>Year</b>	<b>Actual</b>
2012	1

**Output #3**

**Output Measure**

- Number of fair-type settings in which nutrition education - prevention of childhood obesity information will be presented

<b>Year</b>	<b>Actual</b>
2012	3

**Output #4**

**Output Measure**

- Number of websites developed and maintained  
Not reporting on this Output for this Annual Report

**Output #5**

**Output Measure**

- Number of partnerships with agencies and organizations that will assist in improving the eating and physical exercise habits of U.S. Virgin Islands children and youth

<b>Year</b>	<b>Actual</b>
2012	10

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Number of adults learning information about the prevention of childhood obesity
2	Percentage of adults helping children and youth to practice healthy lifestyles in order to prevent childhood obesity
3	Number of school-age children learning basic nutrition and physical fitness
4	Percentage of children adopting and maintaining at least one healthy eating habit
5	Increase awareness among the SNAP-ED and EFNEP participants about childhood obesity and its prevention and the issues related to poor nutrition, lack of daily physical activity and overeating
6	Increase awareness among the SNAP-ED and EFNEP participants about prevention of childhood obesity issues related to eating away from home (e.g., restaurants, mobile food vans, food booths, fast food establishments, vending machines)

**Outcome #1**

**1. Outcome Measures**

Number of adults learning information about the prevention of childhood obesity

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	210

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

The entire population cares about the high rate of childhood obesity in the territory because childhood obesity paves the way for chronic diseases in adulthood and diminishes the quality of life for youth.

**What has been done**

Workshops which focused on nutrition were held to educate residents. A partnership with a local television station, the Dept of Education and other groups enhanced the ability to educate the public.

**Results**

Participants committed to improving healthier eating habits with children and family members to improve long term positive health outcomes and prevent obesity.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
703	Nutrition Education and Behavior
724	Healthy Lifestyle



**Outcome #2**

**1. Outcome Measures**

Percentage of adults helping children and youth to practice healthy lifestyles in order to prevent childhood obesity

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	120

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

The VI government, Department of Health and general population is concerned regarding childhood obesity due to the diseases and potential lower quality of life it affords; and which leads to increased medical costs and burden on the overall budget of the territory.

**What has been done**

Educational sessions have been conducted on good nutrition practices including an increase in fruits, vegetables, whole grains with a concomitant decrease in fats, sugar and portion sizes.

**Results**

There are some positive indicators relative to improvement related to children and their families awareness of the importance of healthy lifestyles in the prevention of childhood obesity.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
703	Nutrition Education and Behavior
724	Healthy Lifestyle

**Outcome #3**

**1. Outcome Measures**

Number of school-age children learning basic nutrition and physical fitness

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	498

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

School-age children are expected to influence their family's nutrition habits and physical fitness practices; therefore they are targets for many of the educational information to prevent obesity.

**What has been done**

Nutrition information sessions were provided to youth and children in Head Start. The primary focus of the sessions was on exercise and eating healthy and to decrease the amount of food that individuals are consume or decrease in portion sizes.

**Results**

There are positive signs of change in that children are more aware of eating healthy and the importance of engaging in regular physical activity.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
703	Nutrition Education and Behavior
724	Healthy Lifestyle

**Outcome #4**

**1. Outcome Measures**

Percentage of children adopting and maintaining at least one healthy eating habit

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	525

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

There are positive signs of change in that children are more aware of eating healthy and the importance of engaging in regular physical activity.

**What has been done**

Eight-week nutrition lessons have been conducted in the elementary and junior high schools throughout the Virgin Islands.

**Results**

Nutrition educators have seen an increase in knowledge in the children and youth of the territory as related to healthy eating and the importance of physical activity.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
703	Nutrition Education and Behavior
724	Healthy Lifestyle

**Outcome #5**

**1. Outcome Measures**

Increase awareness among the SNAP-ED and EFNEP participants about childhood obesity and its prevention and the issues related to poor nutrition, lack of daily physical activity and overeating

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	700

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

The entire community including the local government and Department of Health care about the childhood obesity challenge in the territory among youth and children.

**What has been done**

Educational sessions were conducted related to the prevention of childhood obesity.

**Results**

There has been positive improvement in the knowledge gained with EFNP and SNAP-Ed participants regarding the importance of preventing childhood obesity.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
703	Nutrition Education and Behavior
724	Healthy Lifestyle

**Outcome #6**

**1. Outcome Measures**

Increase awareness among the SNAP-ED and EFNEP participants about prevention of childhood obesity issues related to eating away from home (e.g., restaurants, mobile food vans, food booths, fast food establishments, vending machines)

## 2. Associated Institution Types

- 1862 Extension

### 3a. Outcome Type:

Change in Knowledge Outcome Measure

### 3b. Quantitative Outcome

Year	Actual
2012	680

### 3c. Qualitative Outcome or Impact Statement

#### Issue (Who cares and Why)

Because of the high obesity rate in the territory, the local government and the Department of Health and the general community are concerned about the issue because of the potential negative consequences.

#### What has been done

Education sessions on eating healthy when eating out were conducted.

#### Results

Participants are more cognizant of the importance of selecting healthy foods and beverages and controlling their portions when eating away from home.

## 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.)
- Other (Cultural Environment)

### Brief Explanation

The territory lies in a hurricane prone zone. When they occur, it disrupts all aspects of life in the VI.

The economy is fragile and health practices are often influenced by available disposable income.

The territory continues to have a high unemployment rate. The cultural environment encourages large portions of food often high in carbohydrates and high levels of fat as an acceptable practice.

This coupled with sedentary lifestyles creates many of the health related challenges seen.

### **V(I). Planned Program (Evaluation Studies)**

#### **Evaluation Results**

Data is incomplete at this time.

#### **Key Items of Evaluation**

Data is incomplete at this time.

**V(A). Planned Program (Summary)**

**Program # 17**

**1. Name of the Planned Program**

Food Safety

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
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins	100%			
	<b>Total</b>	100%			

**V(C). Planned Program (Inputs)**

1. Actual amount of FTE/SYs expended this Program

Year: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	1.0	0.0	0.0	0.0
Actual Paid Professional	0.5	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
25000	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
25000	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
35000	0	0	0

**V(D). Planned Program (Activity)**

1. Brief description of the Activity

- Identified new locations to conduct classes.
- Developed and maintained relationships with partners including government agencies, clinics, places of worship, public and private schools, senior citizen centers, and day care centers.
- Continued to work on development on a webpage that relays information on issues relating to the program.

**2. Brief description of the target audience**

The program targets all U. S. Virgin Islanders but especially low income individuals who are responsible for preparing the family's meals, school age children and youth meals.

**3. How was eXtension used?**

eXtension was not used in this program

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2012	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	262	510	1192	600

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

**Patent Applications Submitted**

Year: 2012  
 Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2012	Extension	Research	Total
<b>Actual</b>	0	0	0

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- Number of 2 week class series conducted for Food Safety participants (adults and youth)



<b>Year</b>	<b>Actual</b>
2012	2

**Output #2**

**Output Measure**

- Number of volunteers recruited and trained to deliver food safety education as related to prevention of foodborne illnesses  
Not reporting on this Output for this Annual Report

**Output #3**

**Output Measure**

- Number of fair-type settings in which food safety education will be presented

<b>Year</b>	<b>Actual</b>
2012	2

**Output #4**

**Output Measure**

- Number of web sites developed and maintained

<b>Year</b>	<b>Actual</b>
2012	1

**Output #5**

**Output Measure**

- Number of partnerships with agencies and organizations that will assist in improving the food safety practices of U.S. Virgin Island children, youth and adults

<b>Year</b>	<b>Actual</b>
2012	2

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Number of adults learning information about the prevention of food borne illnesses
2	Percentage of adults helping children and youth to practice healthy food safety practices
3	Number of school age children learning basic food safety practices
4	Percentage of children adopting and maintaining at least one good food safety practice
5	Increase awareness among community participants about food safety education and information and the prevention of food borne illnesses.
6	Increase awareness among the adult and youth participants about prevention of poor food safety practices related to eating away from home (e.g., restaurants, mobile food vans, food booths, fast food establishments, vending machines)

**Outcome #1**

**1. Outcome Measures**

Number of adults learning information about the prevention of food borne illnesses

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	200

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Food borne illnesses are more probable in the Virgin Islands due to the tropical climate, unpredictable power outages, inappropriate home storage and purchasing and preparation practices. To prevent a major health problem, this issue is of concern to the entire community.

**What has been done**

Basic food safety information was disseminated through workshops, demonstrations, experiential activities and lectures. The public received information about the importance of proper personal hygiene, food storage and preparation, and food handling to prevent foodborne illnesses. During holidays, emphasis was placed on the importance of thawing meats properly and using a meat thermometer to make sure meats are properly cooked.

**Results**

The public indicated heightened awareness of the risk factors for food borne illnesses.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

**Outcome #2**

**1. Outcome Measures**

Percentage of adults helping children and youth to practice healthy food safety practices

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2012	60

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

The general community and Health Department want to help prevent food borne illnesses.

**What has been done**

Educational sessions focused on food safety lectures, demonstrations and requirements that participants maintain at least one food safety practice, i.e. washing hands and surfaces often, avoiding cross-contamination, refrigerating food promptly and cooking food at the proper temperature.

**Results**

Participants gained knowledge about basic food safety information.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

**Outcome #3**

**1. Outcome Measures**

Number of school age children learning basic food safety practices

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2012	475

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

The susceptibility to food borne illnesses is high for youth, increased effort is needed to keep children safe by teaching basic food safety information, including washing of hands, avoiding cross-contamination, refrigerating food promptly and cooking food to proper temperature.

**What has been done**

Over a 6-8 week period, children were given basic food safety information. The series were conducted at schools, summer programs and information was also distributed at fair-type settings.

**Results**

Children were administered a pre-post test which demonstrated knowledge gain.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

**Outcome #4**

**1. Outcome Measures**

Percentage of children adopting and maintaining at least one good food safety practice

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	65

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Because of the high possibility of foodborne illnesses in the territory, extra care needs to be taken to teach young people the importance of adopting and maintaining at least one food safety practice, i.e. washing hands and surfaces often, avoiding cross-contamination, refrigerating food promptly and properly.

**What has been done**

Basic food safety information was disseminated through a series of lessons over a 6-8 week period. Educational sessions were held in schools, summer programs and at fairs.

**Results**

A pre-post measure was administered to the youth which demonstrated an increase in knowledge.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

**Outcome #5**

**1. Outcome Measures**

Increase awareness among community participants about food safety education and information and the prevention of food borne illnesses.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2012	225

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Participants who attended the food safety sessions, need to be more aware of the importance of frequent hand washing and surface cleaning, avoiding cross-contamination, refrigerating food promptly and cooking food at proper temperatures.

**What has been done**

Basic food safety information was disseminated through weekly lessons and at fairs.

**Results**

Participants exhibited an increase in knowledge as demonstrated through a pre-post test measure.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

**Outcome #6**

**1. Outcome Measures**

Increase awareness among the adult and youth participants about prevention of poor food safety practices related to eating away from home (e.g., restaurants, mobile food vans, food booths, fast food establishments, vending machines)

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
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2012

678

### 3c. Qualitative Outcome or Impact Statement

#### Issue (Who cares and Why)

Because of the multiplicity of risk factors for food borne illnesses in the VI; including the tropical climate, unpredictable power outages, and street vendors with no formal food safety training, it is extremely critical that food safety education is implemented.

#### What has been done

Basic food safety information was presented through workshops, classes and demonstrations.

#### Results

Pre-post evaluations were utilized.

### 4. Associated Knowledge Areas

KA Code	Knowledge Area
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

#### V(H). Planned Program (External Factors)

##### External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Other (Cultural Environment)

##### Brief Explanation

The territory is in a hurricane prone zone and when one occurs it can disrupt all aspects of life in the VI. The economy is a factor in the territory due to the high unemployment rate and closing of a major corporation during this period. Disposable income is quite limited. Additionally, the deeply ingrained practice of eating foods high in fat and carbohydrates coupled with large portion sizes is a difficult practice to overcome. It is a long standing cultural practice. In the past, residents were more physically active but now lead more sedentary lifestyles.

#### V(I). Planned Program (Evaluation Studies)

##### Evaluation Results

Data is incomplete at this time.

##### Key Items of Evaluation

Data is incomplete at this time.