

# 2008 University of the Virgin Islands Extension Plan of Work

## I. Plan Overview

### 1. Brief Summary about Plan Of Work

St. Croix, along with St. Thomas, St. John and Water Island, comprise the primary inhabited U. S. Virgin Islands (USVI), consisting of 68 islands and cays located in the Caribbean Basin. The USVI is an incorporated territory of the United States, located 1,075 miles east/southeast of Miami and 50 miles east of Puerto Rico. Christopher Columbus named the islands in 1493. Settled by Denmark in the 17th century, they were purchased from the Danish Government by the United States in 1917. St. Croix, forty miles south of St. Thomas, is the largest island - approximately 84 square miles displaying topography, which is flat, compared to St. Thomas and St. John. Christiansted and Frederiksted are the two main towns of St. Croix; both are noted for their architectural quality and historical significance. Christiansted was the former Danish West Indies capital, and Frederiksted is known for its continuous shorelines. St. Thomas is approximately 32 square miles and is well known for its mountainous terrain, excellent harbors and heavy cultivation of the land. Three miles away from St. Thomas and smaller than Manhattan, St. John is approximately 20 square miles (52 square kilometers); and two-thirds of this island has been designated a U. S. National Park. While the economy of the U. S. mainland has been prospering, the economic status of the U. S. Virgin Islands is in serious trouble, compounded by an unemployment rate exceeding 15%. Living in an insular area separated from the U.S. mainland, the territory's people are exposed to a plethora of problems associated with living in a depressed economy. [Vital Statistics](#) The statistical information provided below is a clear indication that it is important to implement the CES planned programs in the U.S. Virgin Islands. The information detailed below was obtained from the 2000 USVI Statistical Yearbook.

Table 1. Population by Island

Total	St. Croix	St. Thomas	St. John
109,677	51,370	38,975	19,332
100%	46.9%	49.5%	3.7%

Table 2. Population by Age, Sex and Race (2000)

Item	Total	Black	White	Other Races
Total Population	109,677	84,091	11,439	14,147
Male	51,370	38,975	5,556	6,836
Female	58,307	45,112	5,884	7,311
Median Age	30.8	29.1	43.5	27.3
Under 5 years	8,988	7,040	535	1,412
5 to 19 years	31,076	25,216	1,552	4,307
20 to 39 years	28,276	21,845	2,572	3,859
40 to 64 years	30,454	21,759	5,052	3,646
65 years and over	10,885	8,232	1,729	923

Table 3. Household Income Characteristics (2000)

	Item	All Islands	St. Croix	St. Thomas	St. John
	INCOME IN \$				
Mean Household Income		\$33,013	\$29,204	\$35,620	\$43,700
Median Household Income		\$22,842	\$18,582	\$26,440	\$37,434
Mean Family Income		\$37,199	\$33,444	\$39,482	\$52,296
Median Family Income		\$27,908	\$23,093	\$30,710	\$45,278
Per Capita Income		\$10,942	\$9,769	\$11,726	\$15,333
HOUSEHOLDS BELOW POVERTY THRESHOLD					
Number of Households		9,862	5,619	4,049	194

% of all Households 27.1%32.9%22.7%13.7%

Poverty continues to be a critical issue facing the Virgin Islands and the need to create jobs is a major priority. Significant contributing factors for residents to seek public assistance are the lack of financial planning and large families. Of the 79,993 (36,353 males and 43,640 females) individuals who are 15 years and older only 54,028 had earning power. Numbers do not tell the whole story, though. Most teen parents are unmarried, have not graduated from high school, and are unemployed. A growing number of the children in the territory do not have adequate financial resources. Changes in family structure and more mothers having to work to supplement their families' incomes increase the stress and the need for community support of families. Providing programs that will assist families in dealing with the multiple stresses that families face in the community is essential. The planned programs of CES have been structured to deal with the problems facing the V.I. community. The University of the Virgin Islands in its recent Strategic Plan placed special emphasis on excellent teaching, innovative research and responsive community service. Community engagement has become a major priority of the University, thus, our programs have been developed to address the critical issues facing the V.I. community. Programs have been developed that target agricultural producers and their families. The Sustainable Agriculture Program which targets crop producers will conduct educational training and workshops in marketing, value-added processing, and production practices in drip irrigation, rotation and mulching. This will increase the effectiveness and efficiency of farmers and also increase farm income. The program plans to provide computer literacy and record keeping to assist farmers in proper management. Producers will also be trained to be environmentally responsible and economically viable. The Beef, Dairy and Small Livestock Program, in collaboration with the Agricultural Experiment Station, will assist in the development of hardier strains of forages that would withstand more intense grazing practices. This program will also assist farmers in parasite control and educate them in proper management techniques for heavily stocked pastures. This program will also implement a marketing program that will standardize pricing and quality standards to enable producers to sell their products on the local market. The program will also assist livestock producers in implementing accurate performance testing and record management systems in their herds. The Natural Resources and Environmental Management Program will emphasize holistic natural resource protection and conservation. The program will also provide training to contractors and landscapers to incorporate native plants in their projects and would train residents in the use of medicinal plants. This program will provide training and workshops to stimulate interest in the development of an eco-tourism industry, especially on St. Croix. It will also train local residents in careers in tourism and also to become tour guides. This program intends to facilitate public/private partnerships between UVI, government agencies, and community groups. The Urban Forestry Program is designed to increase the knowledge and awareness of Virgin Islanders of the benefits and opportunities resulting from applying sound principles and practices to the management of the local tree population. This program intends to increase the number of land owners and residents establishing entrepreneurial opportunities in our natural resources. An Urban Gardening Program has been developed to assist residents in managing the terrestrial resource around their homes, schools, and businesses. The Water Quality Program will provide leadership through educational outreach to empower individuals to change practices and behaviors in order to protect public health and environmental quality in the U.S. Virgin Islands. This program will provide information and technical assistance to the public on ways to minimize and prevent nonpoint source pollution of our ground water and surface water. It will also promote the development of a comprehensive management strategy that will incorporate the use of low impact development practices and conservation of natural resource. This program will address the critical issues of cistern water contamination and septic water seepage. The Computer Training and Technology Program is intended to increase the participants' knowledge and usage of computers. Participants would gain skills in the use of word processing, E mail and the Internet to save time and money. There are programs specifically targeting limited resources individuals, children, youth and families at-risk, and other low-income clientele. These programs concentrate on skill development, entrepreneurship, and work force preparation. These programs will assist families, youth and children in developing the knowledge, skills, and attitude that would enable them to improve their quality of life. These programs will also assist participants in turning their acquired skills into small home-based businesses to help supplement their limited income. Two nutrition programs have been developed to address some of the problems affecting the community. These programs address the problems of obesity, hypertension, diabetes and other diseases caused by poor nutrition. The program intends to help residents decrease complications from existing disease and increase their knowledge base about disease prevention. There will be workshops, classes and demonstrations targeting low income audiences, seniors, and school-age children. The program will maintain partnerships with various departments and organizations in order to successfully administer the program. The Food Safety Program is designed to decrease the incidence of food borne illness outbreaks in the Virgin Islands so that food borne illness does not become a menace to the health of the population. Three programs have been developed focusing on volunteer development and management, youth development and summer camp. These programs plan to train, motivate, and empower teen and adult volunteers to the establishment of strong, vibrant 4-H clubs, organizations and activities. The program plans to establish effective youth/adult partnerships as a viable leadership strategy. The program plans to assist high school

students who are required to complete community service in research, planning, implementation and evaluation of a community service project. The Youth Development Program, through its activities, would positively impact the organized 4-H club as an exemplary strategy to provide young people with a safe nurturing environment. It plans to strengthen its efforts to provide opportunities for youth and adults to work together to build life skills, enhance social and communications skills, and create an atmosphere that promote lifelong learning for youth and adults. The 4-H Summer Program would embrace the University, Extension and 4-H strategic thrusts and provide opportunity for students to gain relevant sustainable agriculture practices, entrepreneurship skills, and promote healthy lifestyle through educating participants about proper nutrition, diet, and wellness attitude. It will build self esteem, communication skills and values for the youth of the Virgin Islands. The Eastern Caribbean Outreach and Interchange would foster cooperation between affiliated international agricultural organizations in the Eastern Caribbean. This program will expand linkages with individuals and institutions in the agriculture and human resources field. The program will provide training opportunities for producers and agricultural operators in different aspects of sustainable agriculture, horticulture, germplasm exchange, market identification and development. It will also provide a forum for training and growth opportunities of Eastern Caribbean youth leaders and volunteers in the different organizations.

**Estimated Number of Professional FTEs/SYs total in the State.**

Year	Extension		Research	
	1862	1890	1862	1890
2008	21.9	0.0	0.0	0.0
2009	21.9	0.0	0.0	0.0
2010	21.9	0.0	0.0	0.0
2011	21.9	0.0	0.0	0.0
2012	21.9	0.0	0.0	0.0

**II. Merit Review Process**

**1. The Merit Review Process that will be Employed during the 5-Year POW Cycle**

- Combined External and Internal University External Non-University Panel

**2. Brief Explanation**

Programs developed by agents and specialists will be sent to the State Program Leader for approval and submission to the Associate Director and State Director for their input and budget allocations. The programs will then be forwarded to the Vice Provost for Research and Public Service and the University's Office of Sponsored Programs for comments and approval. Accepted programs would be forwarded to the Extension Advisory Council for its input and approval. Approved programs will be shared with specific commissioners in the Virgin Islands Government for comments and input. The final programs will then be sent to the State Director for implementation.

**III. Evaluation of Multis & Joint Activities**

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

The University of the Virgin Islands just completed its Strategic Plan for the next seven years. This Strategic Plan focuses on excellent teaching, innovative research and responsive community service. The planned programs that CES have developed are in line with the University's vision of transforming the future of the Virgin Islands. There are programs specifically targeting limited resources individuals, children, youth and families at-risk, and other low income clientele. Nutrition programs have been developed targeting the general population addressing the issues of obesity, hypertension, diabetes and other diseases caused by poor nutritional. Programs have been developed that addresses the critical issues of cistern water contamination and septic water seepage. There are programs also addressing air quality issues and household products safety. Sustainable agriculture programs have been developed to assist farmers in the efficient utilization of water and the marketing of their products to the local population.

There are volunteer development and management programs addressing the recruitment of volunteers and the problems faced by the young people in the community.

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

The planned programs have been developed with special emphasis on the needs of the under-served and under-represented populations. All efforts will be made to advertise all planned programs in all the local newspapers, radio stations and television to ensure participation of under-served and under-represented people in the planned programs. CES will ensure that all programs reach new emerging or unreached clientele within the U.S. Virgin Islands. Adjustments will be made to program schedules and contents to assist under-served and under-represented populations of the Virgin Islands. Shortcourses, workshops, demonstrations, and other activities would be held primarily in the evenings, Saturdays, and Sundays to accommodate the needs of the clientele. Planned programs will be adjusted to meet the needs and interest of customers with disabilities. All efforts will be made to increase the membership of under-represented racial/ethnic minority group members in structured 4-H/Youth and family community clubs, and special interest and/or study groups.

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

The planned programs have described all the significant expected outcomes and impacts that would make a difference in the Virgin Islands community.

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

In an effort to reach the greatest number of stakeholders and also maximize our resources, these planned programs have collaborated with other government and private agencies in the coordination of programs and activities. These interagency coordination and collaborations will make CES more efficient in reaching its target audience, leveraging more resources to cover more activities, and will have enhanced program delivery. These joint efforts will also help in providing a holistic approach to our planned programs thus making them more effective.

The collaborations and coordinations that we have developed in our planned programs will increase program participation and producer confidence in having all their concerns addressed in a timely manner.

**IV. Stakeholder Input**

**1. Actions taken to seek stakeholder input that encourages their participation**

- Use of media to announce public meetings and listening sessions
- Survey of the general public
- Survey specifically with non-traditional groups
- Targeted invitation to traditional stakeholder groups
- Targeted invitation to non-traditional stakeholder individuals
- Targeted invitation to traditional stakeholder individuals
- Survey of traditional stakeholder individuals
- Targeted invitation to non-traditional stakeholder groups
- Survey of traditional stakeholder groups

**Brief explanation.**

The Cooperative Extension Service (CES) involved all stakeholders and their representatives in the process of developing educational activities for this plan of work. The CES Advisory Council is comprised of nine community leaders who are representatives of the respective programs in Extension. Their main purpose is to provide guidance and direction to the agency in its community outreach activities. They advise, counsel, and confer on the development of annual and long-range plans; represent the attitudes, opinions and feelings of stakeholders with regards to CES' outreach activities and to assist in the development of new activities; assist in communication between CES and its stakeholders. These nine members are also members of different community groups and some are also members of the 4-H Advisory Council and the Homemakers Club. This group meets every quarter. Special meetings are held as needed by the Council or are called at the discretion of the CES State Director. This group evaluates Extension programs and makes recommendations that are used to modify or refocus the different programs. Community groups are sometimes invited to enable them to give ideas and information to be used in their development of CES programs. The Chairman of the CES Advisory Group is also a member of the Research and Public Service (RPS) Advisory Council. CES is a unit within the Research and Public Service Component. At the last Advisory Council meeting, members of the Council were able to

review CES' planned programs and give recommendations on the different programs. They recommended other programs and activities that they thought would benefit the farming community and the general population.

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

**1. Method to identify individuals and groups**

- Use Advisory Committees
- Open Listening Sessions
- Needs Assessments
- Use External Focus Groups
- Use Surveys
- Use Internal Focus Groups

**Brief explanation.**

CES would continue to evaluate its programs by giving participants of all seminars, meetings, and workshops survey forms to complete. Farm and clientele would be made occasionally to determine the impact of the programs and suggestions made by clientele would be recorded and used to make improvement in the educational activities. CES would continue to conduct listening sessions and public meetings to determine program focus and program upgrade. Listening sessions and other program activities would be advertised through local newspapers, the University and Research and Public Service newsletters, and the local television and radio stations.

**2(B). A brief statement of the process that will be 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 invited selected individuals from the general public
- Meeting with the general public (open meeting advertised to all)
- Survey of traditional Stakeholder individuals
- Survey of traditional Stakeholder groups
- Meeting with traditional Stakeholder groups
- Survey specifically with non-traditional groups
- Survey of the general public
- Meeting with traditional Stakeholder individuals

**Brief explanation**

CES will continue to collect information and recommendations from its stakeholders at their quarterly meeting. Surveys of CES stakeholders will be conducted twice a year to get stakeholders involvement in setting priorities and addressing emerging issues in the community. CES will hold two general public meetings where information will be advertised on the radio, television, and newspapers to ensure that the Virgin Islands population has an equal chance of letting us know their concerns. This will also help in updating our programs to take care of community needs.

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

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

**Brief explanation.**

Stakeholders input will be considered in the budget allocation of programs. Stakeholders involvement in CES programs will help in setting priorities and addressing emerging issues in the community. CES will continue to strengthen its collaboration with the Department of Agriculture, the Department of Health, the Department of Labor, the Department of Education, the Department of Human Services, V.I. Housing Authority, and the Office of the Governor in addressing at-risk issues in the community. Stakeholders input will be used in redirecting Extension Programs.

## V. Planned Program Table of Content

S. NO.	PROGRAM NAME
1	4-H Summer Program
2	4-H Volunteer Development and Management Program
3	4-H/Youth Development
4	A Healthy, Well-Nourished Population
5	Basic Food Safety Education – EFNEP and EFNEP Youth
6	Beef, Dairy and Small Livestock
7	Computer Training and Technology Program
8	Eastern Caribbean Extension Outreach and Interchange
9	Marketable Skills for Limited Resource Families, Youth and Communities
10	Natural Resources and Environmental Management
11	Sustainable Agriculture
12	Urban Forestry
13	Urban Gardening
14	Water Quality

**V(A). Planned Program (Summary)****1. Name of the Planned Program**

4-H Summer Program

**2. Brief summary about Planned Program**

With over 26,000 school-aged children living in the Virgin Islands, the summer months present a unique opportunity to engage young people in gaining new knowledge, building life skills and adopting positive attitudes. Older youth, serving as junior counselors, also have the opportunity to partner with highly trained educators to plan and deliver dynamic, innovative programs that target issues relevant to the Virgin Islands community. Providing educational programming in a safe, secure environment is one of the primary reasons parents choose to enroll their children in 4-H. Developing nurturing relationships with competent, compassionate adults continues to be recognized as a positive attribute of 4-H summer camp and year-round programming initiatives. Affordable, high quality, educational programming for school-aged youth, and summer employment for high school and college students continue to be a major factors in setting 4-H summer program priorities. Using age-appropriate activities, the six-week day camps are built around thematic units that focus on the science of agriculture, natural resources and environmental education, energy conservation and education, technology applications, entrepreneurship and healthy lifestyles. As opposed to direct teaching methods such as tutoring and enrichment programs, 4-H's approach to non-formal, experiential learning has distinguished our program from other youth development opportunities. Parents continue to seek out 4-H as the program of choice. Young adults look forward to exploring and developing their career interests in education, science and technology, and youth thrive on the opportunity to gain new knowledge, build new skills and become competent, caring and contributing members of their camp, community, island and world. As funding and staffing grow, additional short-term programs will become available. Innovative, dynamic and youth-oriented week-long or week-end residential camps such as the 4-H CYBER Boot Camp and college preparatory weekends for teens will be included.

**3. Program existence :** Mature (More than five years)

**4. Program duration :** Long-Term (More than five years)

**5. Expending formula funds or state-matching funds :** Yes

**6. Expending other than formula funds or state-matching funds :** Yes

**V(B). Program Knowledge Area(s)****1. Program Knowledge Areas and Percentage**

- 608 5% Community Resource Planning and Development
- 724 5% Healthy Lifestyle
- 803 5% Sociological and Technological Change Affecting Individuals, Families and Communities
- 806 85% Youth Development

**V(C). Planned Program (Situation and Scope)****1. Situation and priorities**

Presently, the UVI-CES 4-H Summer Academy enrolls approximately 200 youth ages 5-14 throughout the Virgin Islands; 100 youth are enrolled in each district. Campsites on all three islands are traditionally located in public schools accessible to the target population. On St. Croix, a more academically oriented program involving approximately 30 youth, ages 11-14 years, is conducted on the UVI campus. In partnership with the Virgin Islands Energy Office, the program hosts Camp K.E.E.P, an energy education program for middle school students, in both districts. Programming for our youngest campers, ages 5-7 years, focuses on building self esteem and communications skills, developing critical thinking skills, promoting character education and values, and helping our youngest campers understand that they can contribute positively to their families, camp and community. All units include some type of literacy development activity. Elementary school-aged participants, ages 8-10 years, are challenged to become critical thinkers as they explore, discover and question science and math concepts occurring in their environment. Although the Virgin Islands is often referred to as a tropical paradise, V.I. youth need to develop a greater appreciation for the natural resources so that they can become better stewards of the many fragile and diverse ecosystems. Agricultural education is an integral part of this experience as well. Sustainable agriculture practices are promoted as a means of teaching children, youth and families to enjoy the benefits of garden fresh produce and realize the potential savings they might experience if they choose to implement box or container gardening. Workforce preparation and entrepreneurship are the focus of the middle school aged (11-14 years) campers. Preteens and young teens are challenged to discover their passion and learn how they can develop their interests

into profitable business ventures. Partnering with the Small Business Development Center, participants engage in researching and developing a workable marketing strategy. Technology applications such as web page design are used to enhance this experience and provide additional relevant skill development. The Kauffman Foundation has provided funding and support for Mini Society®. As a result, campers are able to learn basic entrepreneurship concepts through this dynamic experiential learning format. The National 4-H Council and Kraft Foods have provided funding to support Healthy Lifestyles education. In addition, all participants develop basic computer literacy skills and applications in relation to their camp theme(s). Under leadership of the Assistant Director, 4-H/Family and Consumer Sciences, site coordinators are hired in each district. Senior counselors, generally seasoned teachers, provide leadership for each camp group. Counselor teams are comprised of 2-3 additional high school and college students. Young teens are often included as counselors in training.

**2. Scope of the Program**

- In-State Extension

**V(D). Planned Program (Assumptions and Goals)**

**1. Assumptions made for the Program**

- 4-H staffing will increase to include at least one additional professional staff person serving the St. Thomas/St. John district and one additional 4-H staff person serving the St. Croix district.
- External funding opportunities will continue to be available and staff will have the time and resources available to tap into them.
- Internal funding sources will be maintained at current or higher levels.
- Many families, parents and youth will be interested in learning about how 4-H programs can benefit their children, families and communities, and will choose to become involved in 4-H.
- Young people, with support, encouragement and parent participation, will want to develop the knowledge, skills and attitudes to become conscious, caring, contributing members to their club, community, island, country and world in which they live.

**2. Ultimate goal(s) of this Program**

- Provide vital programming during the summer months for target audience.
- Develop programs that reflect the outcomes of the needs assessment and embrace University, Extension and 4-H strategic thrusts.
- Employ older high school and college students as Junior Counselors.
- Provide opportunity for high school students to fulfill community service requirements as counselors in training.
- Teach energy conservation and environmental education.
- Teach relevant sustainable agriculture strategies.
- Teach entrepreneurship skills.
- Promote healthy lifestyles through educating participants about proper nutrition, diet and wellness attitudes.
- Build self esteem, communications skills and values clarification
- Develop basic computer application competencies

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

**1. Estimated Number of professional FTE/SYs to be budgeted for this Program**

Year	Extension		Research	
	1862	1890	1862	1890
2008	2.0	0.0	0.0	0.0
2009	2.0	0.0	0.0	0.0
2010	2.0	0.0	0.0	0.0
2011	2.0	0.0	0.0	0.0
2012	2.0	0.0	0.0	0.0

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

**1. Activity for the Program**

- Develop digital newsletter
- Prepare appropriate curricula and gather all materials, supplies and equipment needed to carry out objectives
- Promote other 4-H/Youth Development opportunities
- Provide orientation and training for summer staff and volunteers.
- Conduct parenting workshops to assist parents in developing nurturing relationships with their children, improving communications and supporting their development as a whole child.
- Utilize multi-media outlets to promote 4-H/Youth Development programs to attract potential youth.
- Support summer counselors/staff in implementation of selected programs.



Facilitate closing program to showcase program accomplishments.

**2. Type(s) of methods to be used to reach direct and indirect contacts**

Extension	
Direct Methods	Indirect Methods
<ul style="list-style-type: none"> <li>● Group Discussion</li> <li>● Education Class</li> <li>● Demonstrations</li> <li>● One-on-One Intervention</li> <li>● Workshop</li> </ul>	<ul style="list-style-type: none"> <li>● Other 1 (Radio)</li> <li>● Newsletters</li> <li>● Public Service Announcement</li> <li>● TV Media Programs</li> </ul>

**3. Description of targeted 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

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

**1. Standard output measures**

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2008	200	2500	350	5000
2009	200	2500	350	5000
2010	200	2500	350	5000
2011	250	2500	350	5000
2012	250	2500	350	5000

**2. (Standard Research Target) Number of Patents**

**Expected Patents**

2008 :0                      2009 :0                      2010 :0                      2011 :0                      2012 :0

**3. Expected Peer Review Publications**

Year	Research Target	Extension Target
2008	0	0
2009	0	0
2010	0	0
2011	0	0
2012	0	0

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

**1. Output Target**

- Number of digital newsletters promulgated

2008 :5                      2009 :5                      2010 : 5                      2011 :5                      2012 :5

- Number of workshops, presentations and demonstrations facilitated or conducted

2008 :25                      2009 :25                      2010 : 25                      2011 :25                      2012 :25

- Number of parents attending workshop(s)

2008 :35                      2009 :40                      2010 : 45                      2011 :50                      2012 :40

- Number of teachers and students employed

2008 :35                      2009 :40                      2010 : 45                      2011 :50                      2012 :40

- Number of students completing/meeting community service requirements as counselors in training

2008 :3                      2009 :4                      2010 : 5                      2011 :6                      2012 :6

**V(I). State Defined Outcome**

**1. Outcome Target**

Number of children enrolled and reported on ES-237 as 4-H members in summer camp programs

**2. Outcome Type :** Change in Condition Outcome Measure

2008 :350                      2009 : 400                      2010 : 450                      2011 :500                      2012 : 300

**3. Associated Knowledge Area(s)**

- 806 - Youth Development

**1. Outcome Target**

Number of youth learning basic computer competencies

**2. Outcome Type :** Change in Condition Outcome Measure

2008 :200                      2009 : 250                      2010 : 300                      2011 :350                      2012 : 300

**3. Associated Knowledge Area(s)**

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

**1. Outcome Target**

Number of youth building entrepreneurship skills

**2. Outcome Type :** Change in Condition Outcome Measure

2008 :350                      2009 : 400                      2010 : 450                      2011 :500                      2012 : 300

**3. Associated Knowledge Area(s)**

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

**1. Outcome Target**

Percentage of youth adopting healthy lifestyles strategies

**2. Outcome Type :** Change in Knowledge Outcome Measure

2008 :85                      2009 : 90                      2010 : 95                      2011 :100                      2012 : 85

**3. Associated Knowledge Area(s)**

- 724 - Healthy Lifestyle
- 806 - Youth Development

**1. Outcome Target**

Percentage of participants constructing container or small gardens

**2. Outcome Type :** Change in Condition Outcome Measure

2008 :30                      2009 : 35                      2010 : 40                      2011 :45                      2012 : 50

**3. Associated Knowledge Area(s)**

- 608 - Community Resource Planning and Development
- 806 - Youth Development

**1. Outcome Target**

Percentage of youth demonstrating leadership and life skills

**2. Outcome Type :** Change in Knowledge Outcome Measure

2008 :75                      2009 : 75                      2010 : 75                      2011 :75                      2012 : 75

**3. Associated Knowledge Area(s)**

- 806 - Youth Development

**1. Outcome Target**

Percentage of youth reporting an increased decision making skills reflected core character values

**2. Outcome Type :** Change in Condition Outcome Measure

2008 :75                      2009 : 75                      2010 : 75                      2011 :75                      2012 : 75

**3. Associated Knowledge Area(s)**

- 806 - Youth Development

**1. Outcome Target**

Percentage of employees reporting successful use of counselor training and experience in future employment endeavors

**2. Outcome Type :** Change in Condition Outcome Measure

2008 :55                      2009 : 60                      2010 : 65                      2011 :70                      2012 : 75

**3. Associated Knowledge Area(s)**

- 608 - Community Resource Planning and Development
- 803 - Sociological and Technological Change Affecting Individuals, Families and Communities
- 806 - Youth Development

**1. Outcome Target**

Number of youth demonstrating knowledge gained, skills learned, positive attitudes

**2. Outcome Type :** Change in Condition Outcome Measure

2008 :350

2009 : 400

2010 : 450

2011 :500

2012 : 300

**3. Associated Knowledge Area(s)**

- 806 - Youth Development

**V(J). Planned Program (External Factors)****1. External Factors which may affect Outcomes**

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

**Description**

• The Virgin Islands lies in a hurricane-prone zone. Natural disasters disrupt all aspects of life in the V.I. and prove to be a stressful challenge for children, youth and families in coping with the resultant stress. In the event that a natural disaster were to occur, volunteers and staff would be expected to assess their personal situation and insure theirs and their family's safety. Once their immediate needs are met, volunteers and staff would be reassigned to disaster relief efforts (eg. Red Cross, FEMA, etc.) • 4-H would make every effort to provide support networks to assist victims in regaining some sense of normalcy and comfort • The V.I. currently has one of the highest unemployment rates in the nation; nearly 40% of our households operate below the poverty threshold and there is a disproportionately high number of families headed up by single, female heads of household. Finding ways to successfully engage this population in ways that are feasible and meaningful for them is a challenge. • Increased security and the need to guarantee a safe, secure and nurturing environment requires that volunteers must provide a police record, submit and be screened by the national sex offenders registry, and complete finger printing records. These requirements come at a substantial cost to predominantly low-income volunteers. This factor can be a deterrent to potential volunteers if not handled with empathy and concern. • The No Child Left Behind initiative has made 4-H programming in the public schools a real challenge. A renewed emphasis on math and reading competencies has taken valuable classroom time away from the sciences, exploratory programs and opportunities for in-class and after-school options such as 4-H. It is imperative that our activities can be packaged in such a way that they can augment/supplement existing academic initiatives. • The V.I. 4-H Program competes with many other youth development programs such as Boys and Girls Club, Girl Scouts and Boy Scouts. In addition, many schools and churches have developed their own after school programs. Historically, 4-H does not enjoy the traditional base that other stateside 4-H programs have. Therefore, a dynamic and effective media campaign is needed to attract 4-H alumni, and others to consider 4-H their volunteer experience of choice.

**V(K). Planned Program (Evaluation Studies and Data Collection)****1. Evaluation Studies Planned**

- Before-After (before and after program)
- During (during program)
- Comparisons between program participants (individuals,group,organizations) and non-participants

**Description**

• Before-After:  Pre- and post-tests will be administered at the beginning and the conclusion of each 4-H project • During:  Unit tests will be given as prescribed in 4-H curricula  Member interviews will be conducted  Campers will maintain journals • Comparisons between program participants and non-participants:  Benefits of 4-H program participation will be documented and compared to non-participants

**2. Data Collection Methods**

- Structured
- Unstructured
- Tests

**Description**

• Survey:  Parent interest surveys will be disseminated with all 4-H and other clientele group application forms • Interview:  Structured interviews/focus groups will be used to collect interests, concerns, desires

**V(A). Planned Program (Summary)****1. Name of the Planned Program**

4-H Volunteer Development and Management Program

**2. Brief summary about Planned Program**

Well trained, highly motivated, empowered teen and adult volunteer leaders are critical to the establishment of strong, vibrant 4-H clubs, organizations and activities. Tapping into underserved, low-income, at-risk and youth audiences to recruit volunteers will enable us to serve a larger number of youth. Closer collaboration with fellow UVI components, CES and CYFAR programs will allow us to more effectively and efficiently train and support volunteer and youth audiences. Partnering with local Departments of Education, Labor and Human Services will assist us in marshalling resources critical to developing a well-trained volunteer leader corps. Working in cooperation with community based and non-profit organizations will allow us to multiply our efforts to recruit highly interested, knowledgeable volunteers to undertake 4-H project or special interest leadership. Staff and volunteer leadership development and in-service training needs to be strengthened to insure that permanent and volunteer staff are kept abreast of current best practices in the youth development field. Because of financial constraints, staff and volunteers have not taken part in regional volunteer leader forums and the National 4-H Conference since 2001. Every effort needs to be made to insure that volunteers and staff have the opportunity to attend, participate in and contribute to these valuable events. Implementing middle management volunteer roles and organizations such as a master volunteer program, volunteer leaders' organization and a 4-H Advisory Council will provide valuable stake holder input, and serve to maximize and support 4-H programming initiatives.

**3. Program existence :** Mature (More than five years)

**4. Program duration :** Long-Term (More than five years)

**5. Expending formula funds or state-matching funds :** Yes

**6. Expending other than formula funds or state-matching funds :** No

**V(B). Program Knowledge Area(s)****1. Program Knowledge Areas and Percentage**

- 801 10% Individual and Family Resource Management
- 802 65% Human Development and Family Well-Being
- 803 10% Sociological and Technological Change Affecting Individuals, Families and Communities
- 806 15% Youth Development

**V(C). Planned Program (Situation and Scope)****1. Situation and priorities**

The 4-H program is under the leadership of an Assistant Director, 4-H/Family and Consumer Sciences. One professional 4-H staff person works on St. Croix and one on St. John. A paraprofessional 4-H staff person serves St. Thomas. Programming efforts are targeted to audiences on each island. Youth and adult volunteer leaders serving the Virgin Islands 4-H program have dwindled from 42 to less than 30. Presently, 22 volunteers serve four organized 4-H clubs and one special interest group on St. Croix; three teens served as volunteers with the 2005 UVI-CES 4-H Summer Academy. Four community-based volunteer leaders and three volunteers provided leadership for the 4-H Carnival Troupe on St. Thomas. There are 29 volunteers - 18 females and 11 males. Fourteen are black (48%), 5 are Hispanic (17%), 9 are white (31%); 1 is reported as other. Three are teen leaders, under 18, 2 are college students; the remaining 24 are between the ages of 35 and 55. Of these volunteers, only 11% identified themselves as low-income; the remainder report family incomes between \$55,000 and \$85,000. All volunteers come from two-parent families; 67% have children enrolled in 4-H. Properly oriented and well-trained, enthusiastic, and committed volunteers are the backbone of the Virgin Islands 4-H Youth Development Program. Due to a lack of staff, presently there is little systematic effort toward volunteer recruitment, training and recognition. As a result, potential volunteer markets remain untapped. Volunteer recruitment efforts need to be expanded to include underserved populations and teens needing community service. Utilizing volunteers in non-traditional roles can more effectively and efficiently help the program grow. Episodic volunteers, teams of volunteers (VolunTEAMS), and underserved volunteers can be better used to deliver unique, innovative programs that meet the needs of diverse stakeholders. Given the harsh economic climate of the Virgin Islands, our highly motivated, but increasingly small staff must find ways to cultivate a non-traditional, well-trained, motivated volunteer staff. A comprehensive volunteer recruitment, training, development and recognition program that effectively reflects national 4-H goals and objectives, mirrors the strategic thrusts of the University of the Virgin Islands, meets the needs of, and reflects the makeup of, our community, is vital to our ability to cultivate a community of

youth and adults across America and the Virgin Islands who are learning leadership, citizenship and life skills. Other initiatives include establishment of master volunteer and advisory groups to multiply current outreach efforts. A collegiate 4-H chapter can provide valuable contributions to leadership development and innovative teen programming. A volunteer leaders' organization can best advocate leadership development and the implementation of our first state volunteer leaders' conference. A 4-H Advisory Council can assist in gathering vital stakeholder input, and reviewing and adopting/adapting 4-H policies and procedures.

## **2. Scope of the Program**

- In-State Extension

## **V(D). Planned Program (Assumptions and Goals)**

### **1. Assumptions made for the Program**

- 4-H staffing will increase to include at least one additional professional staff person serving the St. Thomas/St. John district and one additional 4-H staff person serving the St. Croix district.
- Funding levels will increase; with additional staff, external funding opportunities can be tapped.
- Distance learning, teleconferencing and net meeting capabilities will be strengthened to meet the unique demands of connecting programs between geographically separate islands.
- Current staff members are V.I. residents or long-term residents. Their experience and knowledge of V.I. culture, the environment, and youth development make them uniquely qualified to work with the 4-H program.
- Many local families, parents, youth and youth development programs will be interested in learning more about current best practices in the youth development field and how they can contribute their time, talents and treasures.
- Many families, parents and youth will be interested in learning about how 4-H programs can benefit their children, families and communities, and will choose to become involved in 4-H.
- Volunteer leaders working with 4-H clubs, will continue to be life-long learners motivated to help young people develop the knowledge, skills and attitudes to become conscious, caring, contributing members to their club, community, island, country and world in which they live.

### **2. Ultimate goal(s) of this Program**

- To recruit, orient and train youth and adult volunteers, 4-H staff, CES staff, and V.I. National Guard personnel in youth development theory, program management skills and 4-H club organizational structure annually.
- To train and develop youth and adult volunteers, and 4-H staff in organizational leadership, group facilitation, youth development and personal development.
- To specifically recruit and train low-income, at-risk adults receiving public assistance to become volunteer leaders in their respective housing communities and CYFAR sites.
- To train and certify Master Volunteer Leaders to serve as mentors, provide volunteer orientation and conduct training in various subject matter areas.
- To train 4-H clientele in establishing effective youth/adult partnerships as a viable leadership strategy.
- To facilitate youth, adult volunteer and staff participation and contribution to Southern Region Leaders' Forum (SRLF), National 4-H Conference, National 4-H Technology Leadership Conference, and other relevant leadership development opportunities.
- To collaborate with the local Army and Air Force National Guard units to promote 4-H program enrollment, volunteer leadership and 4-H project development.
- To identify an advisor and establish a collegiate 4-H chapter on the St. Croix campus.
- To facilitate organization of a 4-H Volunteer Leaders' Association, 4-H Advisory Council and Foundation
- To recruit high school students needing to complete community service requirements to research, plan, implement and evaluate a community service project.
- To coordinate annual 4-H Volunteer Leader Awards and Recognition Program in conjunction with National Volunteer Week in April.
- To partner with community-based, non-profit programs to recruit, train and support volunteer leadership for 4-H projects focusing on engineering, science and technology with special emphasis on agriculture and environmental education, and programs which promote healthy lifestyles for youth.
- To conduct guest presentations advocating for 4-H/Youth development programs with Rotary Clubs, Lions Clubs, Chambers of Commerce, St. Croix Community Foundation, Community Foundation of the VI (CFVI), UVI Alumni Association, Interfaith Coalition and EDC companies (eg. HOVENSA and ICC Prosser Foundation).
- To collaborate with CES administration, 4-H Advisory Council and 4-H membership to research, identify, adopt/adapt and implement a 4-H Volunteer and Program Management framework to guide future 4-H growth and development efforts.

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

### **1. Estimated Number of professional FTE/SYs to be budgeted for this Program**

Year	Extension		Research	
	1862	1890	1862	1890
2008	2.0	0.0	0.0	0.0
2009	2.0	0.0	0.0	0.0
2010	2.0	0.0	0.0	0.0
2011	2.0	0.0	0.0	0.0
2012	2.0	0.0	0.0	0.0

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

**1. Activity for the Program**

- Develop 4-H web page, newsletter, materials, workshops, presentations and demonstrations that provide information about 4-H/Youth Development volunteer leadership opportunities. 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).
- Provide orientation, training and professional development for teen and adult volunteers, partners, 4-H/Family and Consumer Sciences/CYFAR staff, and CES personnel.
- Utilize multi-media outlets to promote 4-H/Youth Development programs to attract potential youth and adult volunteers.
- Facilitate youth and adult volunteers, and 4-H staff participation in annual Southern Region 4-H Volunteer Leaders' Forum, annual National 4-H Conference, and biannual National 4-H Technology Leadership Conference.
- Collaborate with government departments, non-profit agencies, community-based programs, and special interest groups to recruit, train and support 4-H volunteer development.
- Establish a Collegiate 4-H Chapter.
- Facilitate establishment of 4-H Volunteer Leader Organization.
- Facilitate formation of 4-H Advisory Council and Foundation.
- Work together with CES administration and 4-H leadership locally and nationally to develop 4-H Volunteer Management framework.

**2. Type(s) of methods to be used to reach direct and indirect contacts**

Extension	
Direct Methods	Indirect Methods
<ul style="list-style-type: none"> <li>● Other 1 (short courses)</li> <li>● Demonstrations</li> <li>● One-on-One Intervention</li> <li>● Workshop</li> </ul>	<ul style="list-style-type: none"> <li>● Other 2 (radio)</li> <li>● Other 1 (teleconferencing)</li> <li>● Public Service Announcement</li> <li>● Newsletters</li> <li>● Web sites</li> <li>● TV Media Programs</li> </ul>

**3. Description of targeted audience**

- Current and newly recruited 4-H volunteer leaders,
- Low-income, at-risk, un- or underemployed adults residing in public/federally subsidized housing communities, and CYFAR clientele
- 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.
- Parents of current 4-H club members and summer program participants.
- University of the VI students,
- Youth and adults (general public) responding to multi-media 4-H volunteer campaign,
- Youth and adults indicating interest in 4-H volunteer leadership at World Food Day and fairs.
- Departments, agencies, clubs, and programs working with 4-H.

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

**1. Standard output measures**

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2008	250	2500	150	1500
2009	250	2500	150	1500
2010	250	2500	150	1500
2011	250	2500	150	1500
2012	250	2500	150	1500

**2. (Standard Research Target) Number of Patents**

**Expected Patents**

**2008 :0                      2009 :0                      2010 :0                      2011 :0                      2012 :0**

**3. Expected Peer Review Publications**

Year	Research Target	Extension Target
2008	0	0
2009	0	0
2010	0	0
2011	0	0
2012	0	0

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

**1. Output Target**

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

**2008 :5                      2009 :5                      2010 :5                      2011 :5                      2012 :5**

- Number of workshops, presentations and demonstrations conducted

**2008 :25                      2009 :25                      2010 :25                      2011 :25                      2012 :25**

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

**2008 :35                      2009 :35                      2010 :35                      2011 :35                      2012 :35**

- Number of partnerships, collaborations or cooperative agreements formed

**2008 :5                      2009 :5                      2010 :5                      2011 :5                      2012 :5**

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

**2008 :15                      2009 :15                      2010 :15                      2011 :15                      2012 :15**



**V(I). State Defined Outcome**

**1. Outcome Target**

Number of organized 4-H clubs formed

**2. Outcome Type :** Change in Condition Outcome Measure

2008 :5                      2009 : 5                      2010 : 5                      2011 :5                      2012 : 5

**3. Associated Knowledge Area(s)**

- 806 - Youth Development

**1. Outcome Target**

Number of special interest or short-term groups formed

**2. Outcome Type :** Change in Condition Outcome Measure

2008 :5                      2009 : 5                      2010 : 5                      2011 :5                      2012 : 5

**3. Associated Knowledge Area(s)**

- 806 - Youth Development

**1. Outcome Target**

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

**2. Outcome Type :** Change in Condition Outcome Measure

2008 :1                      2009 : 1                      2010 : 1                      2011 :1                      2012 : 1

**3. Associated Knowledge Area(s)**

- 802 - Human Development and Family Well-Being

**1. Outcome Target**

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

**2. Outcome Type :** Change in Condition Outcome Measure

2008 :55                      2009 : 60                      2010 : 65                      2011 :70                      2012 : 75

**3. Associated Knowledge Area(s)**

- 802 - Human Development and Family Well-Being
- 806 - Youth Development

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

**1. External Factors which may affect Outcomes**

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

**Description**

• The Virgin Islands lies in a hurricane-prone zone. Natural disasters disrupt all aspects of life in the V.I. and can prove to be a stressful challenge for children, youth and families in coping with the resultant upheaval. In the event that a natural disaster was to occur, volunteers and staff would be expected to assess their personal situation and insure theirs and their family's safety. Once their immediate needs are met, volunteers and staff would be reassigned to disaster relief efforts (eg. Red Cross, FEMA, etc.) • 4-H would make every effort to provide support networks to assist victims in regaining some sense of normalcy and comfort. • The

V.I. currently has one of the highest unemployment rates in the nation; nearly 40% of our households operate below the poverty threshold and there is a disproportionately high number of families headed up by single, female heads of household. Finding ways to successfully engage this population in ways that are feasible and meaningful for them is a challenge. • Increased security and the need to guarantee a safe, secure and nurturing environment requires that volunteers must provide a police record, submit and be screened by the national sex offenders registry, and complete finger printing records. These requirements come at a substantial cost to predominantly low-income volunteers. This factor can be a deterrent to potential volunteers if not handled with empathy and concern. • The No Child Left Behind initiative has made 4-H programming in the public schools a real challenge. A renewed emphasis on math and reading competencies has taken valuable classroom time away from the sciences, exploratory programs and opportunities for in-class and after-school options such as 4-H. It is imperative that activities be packaged in such a way that they can augment/supplement existing academic initiatives. • The V.I. 4-H Program competes with many other youth development programs such as Boys and Girls Club, Girl Scouts and Boy Scouts. In addition, many schools and churches have developed their own after school programs. Historically, 4-H does not enjoy the traditional base that other stateside 4-H programs have. Therefore, a dynamic and effective media campaign is needed to attract 4-H alumni, and others to consider 4-H their volunteer experience of choice.

## **V(K). Planned Program (Evaluation Studies and Data Collection)**

### **1. Evaluation Studies Planned**

- Before-After (before and after program)
- During (during program)
- Comparisons between program participants (individuals,group,organizations) and non-participants

#### **Description**

• Before-After:  Pre- and post-tests will be administered before and after each training.  Knowledge tests (interactive activities) will be administered to determine familiarity with general 4-H information. • During:  Unit tests will be given at the conclusion of each unit.  Volunteer interviews will be conducted.  Volunteer portfolios will be developed and reviewed.  Club visits will be conducted to ascertain level of implementation.  Periodic volunteer consultations will be held to discuss progress, challenges and goals. • Comparisons between program participants and non-participants:  Benefits of 4-H program/volunteer participation will be documented and compared to non-participants.

### **2. Data Collection Methods**

- Mail
- On-Site
- Structured
- Observation
- Portfolio Reviews
- Tests

#### **Description**

• Survey:  Parent interest surveys will be disseminated with all 4-H and other clientele application forms.  Questionnaires will include demographic characteristics of volunteers.  Questionnaires will be used to query volunteer motivation. • Interview:  Structured interviews will be conducted with each volunteer applicant.  Structured interviews/focus groups will be used to collect interests, concerns, desires. • Observation:  Regular club visits will be made. • Portfolio Review:  Volunteers will be expected to maintain and share personal portfolios. • Tests:  Periodic tests will be given during training and in-service activities.

**V(A). Planned Program (Summary)****1. Name of the Planned Program**

4-H/Youth Development

**2. Brief summary about Planned Program**

Recognizing the historical and continued positive impact of the organized 4-H club as an exemplary strategy to provide young people with a safe, nurturing environment, the 4-H Youth Development Program will strengthen its efforts to provide opportunities for youth and adults to work together to build life skills, enhance social and communication skills, and create an atmosphere that promotes lifelong learning and relevance for youth and adults alike. In collaboration with UVI, community based organizations, after school programs and other special interest groups, 4-H will expand our leadership and membership base to incorporate dynamic, innovative programs targeting at-risk, underserved audiences. Focusing on leadership development as a critical life skill, philanthropy and grantsmanship, career exploration, and workforce preparation and entrepreneurship, new project development will be guided by a needs assessment and be aligned with UVI, CES and national 4-H strategic thrusts focusing on engineering, science and technology, and healthy lifestyles.

**3. Program existence :** Mature (More than five years)

**4. Program duration :** Long-Term (More than five years)

**5. Expending formula funds or state-matching funds :** Yes

**6. Expending other than formula funds or state-matching funds :** No

**V(B). Program Knowledge Area(s)****1. Program Knowledge Areas and Percentage**

- 608 5% Community Resource Planning and Development
- 724 5% Healthy Lifestyle
- 801 5% Individual and Family Resource Management
- 802 15% Human Development and Family Well-Being
- 803 5% Sociological and Technological Change Affecting Individuals, Families and Communities
- 806 65% Youth Development

**V(C). Planned Program (Situation and Scope)****1. Situation and priorities**

Presently, there are six (6) 4-H clubs and two (2) special interest groups enrolling 252 4-H members. One club is school-based; five are community-based. One special interest group is organized in a parochial school and the other special interest program is community-based. There are seven (7) specific projects. In addition to project work, 4-H clubs conduct at least one community service activity, participate in the annual agriculture and food fairs, and contribute to World Food Day outreach and education activity. An unincorporated territory of the United States, the U.S. Virgin Islands is uniquely Caribbean. The Virgin Islands is comprised of four (4) geographically separate islands 1,100 miles southeast of Miami, Florida. St. Croix, 45 miles to the south, is the largest at just 84 square miles. St. Thomas, St. John and Water Island, located directly east of San Juan, are considered as one district. The total population in 2003 was 110,740 according to V.I. Kids Count 2005. The child population continues a slight upward trend and is now 33,269 (~30% of the total population), significantly higher than the national average of 26%. The number of children living on St. Croix is 17,231; St. Thomas/St. John is 17,139. As enumerated in the 2001 USVI Community Survey, there were 26,689 school-aged children (ages 5-19). This number represents over 66% of the school-aged youth population as a potential target audience for 4-H/Youth Development programming efforts. Eighteen licensed after school program providers on St. Croix (similar for St. Thomas/St. John) serve a very small percentage (under 20%) of this population. Junior high and high school youth are involved in interscholastic athletics, academic clubs and other in-school or school-affiliated programs. Elementary school children take part in many public and non-public school-sponsored after school programs. Other widely recognized youth development programs such as the Boys and Girls Clubs, Boy Scouts and Girl Scouts enjoy a loyal following. Reflecting a strong faith-based community, many churches provide youth activities and programs as well. A needs assessment will be conducted to obtain a clearer picture of the target audience and to determine program development priorities. Questionnaires will be distributed, surveys conducted, and focus groups established to define the needs and scope of the target audience. Upon completion, programming efforts will be prioritized to reflect UVI Cooperative Extension Service goals, the University's strategic thrusts and the National 4-H Strategic Plan.

**2. Scope of the Program**

- In-State Extension

**V(D). Planned Program (Assumptions and Goals)**

**1. Assumptions made for the Program**

• 4-H staffing will increase to include at least one additional professional staff person serving the St. Thomas/St. John district and one additional 4-H staff person serving the St. Croix district. • Funding levels will increase; with additional staff, external funding opportunities can be tapped. • Distance learning, teleconferencing and net meeting capabilities will be strengthened to meet the unique demands of connecting programs between geographically separate islands. • Current staff members are V.I. residents or long-term residents. Their experience and knowledge of V.I. culture, the environment, and youth development make them uniquely qualified to work with the 4-H program. • Many local families, parents, youth and youth development programs will be interested in learning more about current best practices in the youth development field and how they can contribute their time, talents and treasures. • Many families, parents and youth will be interested in learning about how 4-H programs can benefit their children, families and communities, and will choose to become involved in 4-H. • Volunteer leaders working with 4-H clubs, will continue to be life-long learners motivated to help young people develop the knowledge, skills and attitudes to become conscious, caring, contributing members to their club, community, island, country and world in which they live.

**2. Ultimate goal(s) of this Program**

• To recruit, orient and train 2000 youth by the close of this current plan of work cycle. • To train and develop youth and adult volunteers, and 4-H staff in organizational leadership, group facilitation, youth development and personal development resulting in the formation of organized 4-H clubs. • To provide programming specifically targeting middle-school aged males in an effort to curb delinquent behaviors. • To conduct programs that reflect the outcomes of the needs assessment and reflect University, Extension and 4-H strategic thrusts. • To train 4-H clientele in establishing effective youth/adult partnerships as a viable leadership strategy and promote youth leadership beginning with club officers. • To facilitate youth participation and contribution to, National 4-H Conference, National 4-H Technology Leadership Conference, and other relevant leadership development opportunities. • To collaborate with the local Army and Air Force National Guard units to promote 4-H program enrollment and resource development. • To collaborate with CES administration, 4-H Advisory Council and 4-H membership to research, identify, adopt/adapt and implement a 4-H Policies and Procedures framework to guide future 4-H growth and development efforts.

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

**1. Estimated Number of professional FTE/SYs to be budgeted for this Program**

Year	Extension		Research	
	1862	1890	1862	1890
2008	2.0	0.0	0.0	0.0
2009	2.0	0.0	0.0	0.0
2010	2.0	0.0	0.0	0.0
2011	2.0	0.0	0.0	0.0
2012	2.0	0.0	0.0	0.0

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

**1. Activity for the Program**

• Develop 4-H web page, newsletter, materials, workshops, presentations and demonstrations that provide information about 4-H/Youth Development opportunities. Set up 4-H information booths at World Food Day, St. Thomas/St. John Agriculture and Food Fair, and the V.I. Agriculture and Food Fair (St. Croix). • Provide orientation, training for teen and adult volunteers, and 4-H members to effectively work with club officers and program committees. • Conduct parenting workshops to assist parents in developing nurturing relationships with their children, improving communications and supporting their development as a whole child. • Utilize multi-media outlets to promote 4-H/Youth Development programs to attract potential youth. • Facilitate formation of



Year	Research Target	Extension Target
2008	0	0
2009	0	0
2010	0	0
2011	0	0
2012	0	0

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

**1. Output Target**

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

2008 :5                      2009 :5                      2010 : 5                      2011 :5                      2012 :5

- Number of workshops, presentations and demonstrations conducted

2008 :25                      2009 :25                      2010 : 25                      2011 :25                      2012 :25

- Number youth and adult volunteer leaders, and 4-H members trained in club leadership, organization and management

2008 :80                      2009 :80                      2010 : 80                      2011 :80                      2012 :80

- Number of partnerships, collaborations or cooperative agreements formed

2008 :5                      2009 :5                      2010 : 5                      2011 :5                      2012 :5

- Number of youth participating in off-island leadership development opportunities

2008 :5                      2009 :5                      2010 : 5                      2011 :5                      2012 :5

**V(I). State Defined Outcome**

**1. Outcome Target**

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. Outcome Type :** Change in Condition Outcome Measure

2008 :500                      2009 : 900                      2010 : 1400                      2011 :2000                      2012 : 2000

**3. Associated Knowledge Area(s)**

- 806 - Youth Development

**1. Outcome Target**

Percentage of units fulfilling 4-H charter guidelines and receiving official charters

**2. Outcome Type :** Change in Knowledge Outcome Measure

2008 :85                      2009 : 90                      2010 : 95                      2011 :100                      2012 : 100

**3. Associated Knowledge Area(s)**

- 806 - Youth Development

**1. Outcome Target**

Number of youth enrolled in special interest or short-term projects formed as a result of program development committee work groups

**2. Outcome Type :** Change in Condition Outcome Measure

**2008 :**120                      **2009 :** 160                      **2010 :** 200                      **2011 :**240                      **2012 :** 240

**3. Associated Knowledge Area(s)**

- 806 - Youth Development

**1. Outcome Target**

Percentage of clubs adopting, implementing or utilizing effective leadership strategies

**2. Outcome Type :** Change in Condition Outcome Measure

**2008 :**85                      **2009 :** 90                      **2010 :** 95                      **2011 :**100                      **2012 :** 100

**3. Associated Knowledge Area(s)**

- 806 - Youth Development

**1. Outcome Target**

Percentage increase in male enrollment

**2. Outcome Type :** Change in Condition Outcome Measure

**2008 :**10                      **2009 :** 10                      **2010 :** 10                      **2011 :**10                      **2012 :** 10

**3. Associated Knowledge Area(s)**

- 806 - Youth Development

**1. Outcome Target**

Percentage of youth adopting leadership and life skills

**2. Outcome Type :** Change in Condition Outcome Measure

**2008 :**75                      **2009 :** 75                      **2010 :** 75                      **2011 :**75                      **2012 :** 75

**3. Associated Knowledge Area(s)**

- 806 - Youth Development

**1. Outcome Target**

Percentage of clubs or units engaging in community service activities

**2. Outcome Type :** Change in Condition Outcome Measure

**2008 :**100                      **2009 :** 100                      **2010 :** 100                      **2011 :**100                      **2012 :** 100

**3. Associated Knowledge Area(s)**

- 806 - Youth Development

**1. Outcome Target**

Percentage of youth reporting an increased decision making skills reflected core character values

**2. Outcome Type :** Change in Condition Outcome Measure

**2008 :**75                      **2009 :** 75                      **2010 :** 75                      **2011 :**75                      **2012 :** 75

**3. Associated Knowledge Area(s)**

- 806 - Youth Development

**1. Outcome Target**

Number of 4-H members volunteering to serve as club officers, committee members, junior leaders or teen leaders, or advisory council representatives

**2. Outcome Type :** Change in Condition Outcome Measure

**2008 :**10                      **2009 :** 15                      **2010 :** 20                      **2011 :**25                      **2012 :** 25

**3. Associated Knowledge Area(s)**

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

**1. Outcome Target**

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. Outcome Type :** Change in Condition Outcome Measure

**2008 :**250                      **2009 :** 450                      **2010 :** 700                      **2011 :**1000                      **2012 :** 1000

**3. Associated Knowledge Area(s)**

- 724 - Healthy Lifestyle
- 803 - Sociological and Technological Change Affecting Individuals, Families and Communities
- 806 - Youth Development

**1. Outcome Target**

Number of youth learning and applying principles outlined in 4-H Philanthropic Giving curricula

**2. Outcome Type :** Change in Condition Outcome Measure

**2008 :**20                      **2009 :** 20                      **2010 :** 20                      **2011 :**20                      **2012 :** 20

**3. Associated Knowledge Area(s)**

- 608 - Community Resource Planning and Development
- 806 - Youth Development

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

**1. External Factors which may affect Outcomes**

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

**Description**

• The Virgin Islands lies is a hurricane-prone zone. Natural disasters disrupt all aspects of life in the V.I. and can prove to be a stressful challenge for children, youth and families in coping with the resultant upheaval. In the event that a natural disaster were to occur, volunteers and staff would be expected to assess their personal situation and insure theirs and their family's safety. Once their immediate needs are met, volunteers and staff would be reassigned to disaster relief efforts (eg. Red Cross, FEMA, etc.) • 4-H would make every effort to provide support networks to assist victims in regaining some sense of normalcy and comfort • The V.I. currently has one of the highest unemployment rates in the nation; nearly 40% of households operate below the poverty threshold and there is a disproportionately high number of families headed up by single, female heads of household. Finding ways to successfully engage this population in ways that are feasible and meaningful for them is a challenge. • Increased security and the need to guarantee a safe, secure and nurturing environment requires that volunteers must provide a police record, be screened by the national sex offenders registry, and complete finger printing records. These requirements come at a substantial cost to predominantly low-income volunteers. This factor can be a deterrent to potential volunteers if not handled with empathy and



concern. • The No Child Left Behind initiative has made 4-H programming in the public schools a real challenge. A renewed emphasis on math and reading competencies has taken valuable classroom time away from the sciences, exploratory programs and opportunities for in-class and after-school options such as 4-H. It is imperative that activities be packaged in such a way that they can augment/supplement existing academic initiatives. • The V.I. 4-H Program competes with many other youth development programs such as Boys and Girls Club, Girl Scouts and Boy Scouts. In addition, many schools and churches have developed their own after school programs. Historically, 4-H does not enjoy the traditional base that other stateside 4-H programs have. Therefore, a dynamic and effective media campaign is needed to attract 4-H alumni, and others to consider 4-H their volunteer experience of choice.

## **V(K). Planned Program (Evaluation Studies and Data Collection)**

### **1. Evaluation Studies Planned**

- Before-After (before and after program)
- During (during program)
- Comparisons between program participants (individuals,group,organizations) and non-participants

#### **Description**

• Before-After:  Pre- and post-tests will be administered at the beginning and the conclusion of each 4-H project • During:  Unit tests will be given as prescribed in 4-H curricula  Member interviews will be conducted  Member portfolios/record books will be developed and reviewed  Members will be evaluated using recommended best practices at annual 4-H Project Expo and other designated events  Clubs will be expected to submit copies of minutes, financial records and other reports as outlined by Policies and Procedures • Comparisons between program participants and non-participants:  Benefits of 4-H program participation will be documented and compared to non-participants

### **2. Data Collection Methods**

- Sampling
- Structured
- Unstructured
- Observation
- Portfolio Reviews
- Tests
- Journals

#### **Description**

• Sampling  Selected grade levels across all public, private and parochial schools will receive a questionnaire to assess involvement in non-school hour programs • Survey:  Parent interest surveys will be disseminated with all 4-H and other clientele group application forms • Interview:  Structured interviews/focus groups will be used to collect interests, concerns, desires • Observation:  Regular club visits will be made  Members will be evaluated using interview methods and/or other best practices to assess overall youth development, skill level, knowledge content and new attitudes achieved • Portfolio/Record Books Review:  Members will be expected to maintain and share personal portfolios

**V(A). Planned Program (Summary)****1. Name of the Planned Program**

A Healthy, Well-Nourished Population

**2. Brief summary about Planned Program**

The Healthy, Well-Nourished Population Program provides community-based nutrition and lifestyle education to all U.S. Virgin Island residents, but especially residents at high risk -including low-income audiences, seniors, and school age children. The program helps residents decrease complications from existing disease and increase their knowledge base about disease prevention. The program is administered through workshops, classes, and demonstrations. The geographical location where the program is administered includes schools, day-care centers, churches, senior centers, community centers, and clinics.

**3. Program existence :** Mature (More than five years)

**4. Program duration :** Long-Term (More than five years)

**5. Expending formula funds or state-matching funds :** Yes

**6. Expending other than formula funds or state-matching funds :** No

**V(B). Program Knowledge Area(s)****1. Program Knowledge Areas and Percentage**

- 701 20% Nutrient Composition of Food
- 703 60% Nutrition Education and Behavior
- 724 20% Healthy Lifestyle

**V(C). Planned Program (Situation and Scope)****1. Situation and priorities**

The purpose of this program is to decrease the mortality and morbidity rates from heart disease, cancer, cerebrovascular diseases (e.g., stroke), and diabetes in the U.S. Virgin Islands through healthy lifestyle practices, behavior change modification, and nutrition education programs. In 2001, the leading causes of death in the U.S. Virgin Islands were heart disease (158.2 deaths per 100,000), cancer (104.8 deaths per 100,000), cerebrovascular diseases (43.2 deaths per 100,000), and diabetes (28.5 deaths per 100,000) based on the U.S. National Center for Health Statistics, National Vital Statistics Report (2001). Incidence and morbidity rates are also high in the territory. By reducing the incidence of these diseases and decreasing the mortality and morbidity rates, the territory would have a reduction in the health care economic burden, while raising the productivity and quality of life of USVI residents. The higher rates of heart disease, cancer, cerebrovascular diseases, and diabetes are probably exacerbated by two factors: one being a high poverty level and another is the limited number of qualified nutrition professionals. The U.S. Virgin Islands' poverty level of 28.7% is significantly higher than the national average of 12.4%. The median family income for the average Virgin Islands resident (\$24,704) is significantly less than the national average of \$41,994 (U.S. Census Bureau, Census 2000). In addition, the territory has a high percentage of single family homes headed by a female (24.9%). It is well documented that low-income families are at risk for becoming overweight and developing chronic diseases, such as heart disease and diabetes. The lack of qualified individuals (e.g., licensed or registered dietitians) who can provide culturally appropriate health messages is also contributing to the higher rates of disease in the territory. Currently, there is only a small number of qualified individuals who are able to conduct classes and counsel individuals in the area of nutrition and related behavior modification. A comprehensive nutrition education program, which provides information about disease prevention and management, behavior change modification, and healthy lifestyles could help decrease the territory's mortality and morbidity rates.

**2. Scope of the Program**

- In-State Extension

**V(D). Planned Program (Assumptions and Goals)****1. Assumptions made for the Program**

• People will be motivated to learn and change their behavior. • Staff and volunteers can be recruited and trained to perform necessary tasks. • Internal funding sources will be maintained at current or higher levels. • External funding opportunities will be secured throughout the course of the program. • Schools, churches, clinics, and community centers will want the program to be

conducted at their facility. • Information exists on how to encourage behavior change in a population.

**2. Ultimate goal(s) of this Program**

- To increase public access to culturally sensitive nutrition education materials.
- To increase nutrition education among school-aged children, especially elementary-aged children.
- To increase public awareness about the relationship between lifestyle and nutrition habits to the development of various diseases.
- To increase the number of trained personnel that are able to deliver nutrition, lifestyle, and behavior change information to the community.
- To develop and maintain partnerships with various departments and organizations in order to successfully administer the program.

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

**1. Estimated Number of professional FTE/SYs to be budgeted for this Program**

Year	Extension		Research	
	1862	1890	1862	1890
2008	1.0	0.0	0.0	0.0
2009	1.0	0.0	0.0	0.0
2010	1.0	0.0	0.0	0.0
2011	1.0	0.0	0.0	0.0
2012	1.0	0.0	0.0	0.0

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

**1. Activity for the Program**

- Develop 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—it 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.
- Conduct disease specific workshops, short courses, seminars, and other educational activities focusing on nutrition education and behavior change modification.
- Recruit and train staff and volunteers to deliver nutrition, diet, and health relevant information to the community.
- Develop and/or obtain culturally sensitive nutrition/health curriculum appropriate for school age children at all grade levels.
- Develop and maintain relationships with partners including government agencies, clinics, places of worship, public and private schools, senior citizen centers, and day care centers.
- Develop a web page that relays information on issues relating to the program.

**2. Type(s) of methods to be used to reach direct and indirect contacts**

Extension	
Direct Methods	Indirect Methods
<ul style="list-style-type: none"> <li>● Other 1 (Fair-type settings)</li> <li>● Workshop</li> <li>● Education Class</li> <li>● Demonstrations</li> </ul>	<ul style="list-style-type: none"> <li>● Other 1 (Web site)</li> <li>● Public Service Announcement</li> <li>● TV Media Programs</li> <li>● Newsletters</li> </ul>

**3. Description of targeted audience**

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

**V(G). Planned Program (Outputs)****1. Standard output measures**

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2008	300	5000	350	5000
2009	325	5000	400	5000
2010	350	5000	450	5000
2011	400	5000	500	5000
2012	400	5000	500	5000

**2. (Standard Research Target) Number of Patents****Expected Patents**

2008 :0                      2009 :0                      2010 :0                      2011 :0                      2012 :0

**3. Expected Peer Review Publications**

Year	Research Target	Extension Target
2008	0	0
2009	0	0
2010	0	0
2011	0	0
2012	0	0

**V(H). State Defined Outputs****1. Output Target**

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

2008 :20                      2009 :25                      2010 :25                      2011 :25                      2012 :25

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

2008 :3                      2009 :4                      2010 :5                      2011 :6                      2012 :6

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

2008 :5                      2009 :6                      2010 :6                      2011 :6                      2012 :6

- d. Number of web sites developed and maintained.

2008 :1                      2009 :1                      2010 :1                      2011 :1                      2012 :1

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

2008 :1                      2009 :1                      2010 : 1                      2011 :1                      2012 :1

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

2008 :8                      2009 :10                      2010 : 10                      2011 :10                      2012 :10

**V(I). State Defined Outcome**

**1. Outcome Target**

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

**2. Outcome Type :** Change in Knowledge Outcome Measure

2008 :50                      2009 : 100                      2010 : 100                      2011 :150                      2012 : 150

**3. Associated Knowledge Area(s)**

- 703 - Nutrition Education and Behavior

**1. Outcome Target**

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

**2. Outcome Type :** Change in Action Outcome Measure

2008 :60                      2009 : 65                      2010 : 70                      2011 :75                      2012 : 75

**3. Associated Knowledge Area(s)**

- 724 - Healthy Lifestyle

**1. Outcome Target**

Number of school age children learning basic nutrition information.

**2. Outcome Type :** Change in Knowledge Outcome Measure

2008 :350                      2009 : 400                      2010 : 450                      2011 :500                      2012 : 500

**3. Associated Knowledge Area(s)**

- 703 - Nutrition Education and Behavior
- 724 - Healthy Lifestyle

**1. Outcome Target**

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

**2. Outcome Type :** Change in Knowledge Outcome Measure

2008 :50                      2009 : 55                      2010 : 60                      2011 :65                      2012 : 65

**3. Associated Knowledge Area(s)**

- 703 - Nutrition Education and Behavior
- 724 - Healthy Lifestyle

**1. Outcome Target**

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

**2. Outcome Type :** Change in Knowledge Outcome Measure

2008 :5                      2009 : 5                      2010 : 5                      2011 :5                      2012 : 5

**3. Associated Knowledge Area(s)**

- 701 - Nutrient Composition of Food
- 703 - Nutrition Education and Behavior
- 724 - Healthy Lifestyle

### 1. Outcome Target

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

### 2. Outcome Type : Change in Condition Outcome Measure

2008 :30                      2009 : 45                      2010 : 50                      2011 :55                      2012 : 55

### 3. Associated Knowledge Area(s)

- 703 - Nutrition Education and Behavior

## V(J). Planned Program (External Factors)

### 1. External Factors which may affect Outcomes

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

#### Description

• The U.S. Virgin Islands lies in a hurricane prone zone. Natural disasters such as hurricanes will disrupt all aspects of life in the Virgin Islands – priorities will shift from acquiring knowledge/changing behavior to survival (acquiring food, supplies and safe drinking water). • Economy can affect outcomes because an individual's ability to implement certain health practices is often influenced by their discretionary income. Currently the U.S. Virgin Islands has one of the highest unemployment rates in the nation. • The cultural environment in the U.S. Virgin Islands may affect outcomes because current dietary practices (high carbohydrate and high fat diets) are deeply rooted in the community. In addition, in the past Virgin Islanders were physically active however now the majority of the population lead quite sedentary lifestyles.

## V(K). Planned Program (Evaluation Studies and Data Collection)

### 1. Evaluation Studies Planned

- Before-After (before and after program)
- During (during program)

#### Description

• Before-After  Knowledge tests will be administered to participants before and after workshops, classes, and demonstrations.  The nutrient composition of a participant's 24-hour diet recalls before and after a nutrition education series will be compared.  Knowledge tests will be administered to volunteers during training sessions. • During  Knowledge tests will be administered to participants during workshops, classes, and demonstrations.  Unit tests will be administered to volunteers as prescribed in training manual.

### 2. Data Collection Methods

- Telephone
- On-Site
- Unstructured
- Observation
- Journals

#### Description

• Survey  A random number of individuals who have received educational materials will be contacted via the telephone to determine if the materials were beneficial to improving their health status or helping them change any health habits.  Lifestyle behavior change questionnaires will be disseminated on-site at workshops and in classes to determine the percentage of individuals (adults and children) who have adopted and maintained a new health habit. • Interview: Unstructured  One-on-one informal conversations with Virgin Island residents at fair-type settings, community events, workshops, etc. • Observation

Regular visits to workshops/classes conducted by volunteers will be made.  Regular visits to workshops/classes conducted by staff will be made. • Journals  Volunteers and staff will be expected to maintain journals documenting the number of classes/lectures they have conducted.  Volunteers and staff will be expected to maintain journals documenting the number of individuals (adults and children) who attend their classes/lectures.  Participants in the program will be expected to maintain journals documenting changes in there health status.

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

**1. Name of the Planned Program**

Basic Food Safety Education – EFNEP and EFNEP Youth

**2. Brief summary about Planned Program**

The Basic Food Safety Education and EFNEP 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. Educators work to increase public awareness of the invisible cause of food borne illness—microorganisms that may make food unsafe when basic food safety techniques are not followed. Many areas of food safety are addressed, including personal hygiene, food storage, food preparation, and food handling. 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. The program helps prevent food borne illness outbreaks in the territory. The program is administered through workshops, classes, and demonstrations. The geographical location where the program is administered includes schools, day-care centers, churches, senior centers, community centers, and clinics.

**3. Program existence :** Mature (More than five years)

**4. Program duration :** Long-Term (More than five years)

**5. Expending formula funds or state-matching funds :** Yes

**6. Expending other than formula funds or state-matching funds :** Yes

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

**1. Program Knowledge Areas and Percentage**

- 703 65% Nutrition Education and Behavior
- 712 25% Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occuring Toxins
- 724 10% Healthy Lifestyle

**V(C). Planned Program (Situation and Scope)**

**1. Situation and priorities**

The purpose of this program is to decrease the incidence of food borne illness outbreaks in the U.S. Virgin Islands. Although the incidence of food borne illness outbreaks is not well documented in the territory, these islands have many risks for food borne illness outbreaks, including the tropical climate and unpredictable power outages. In addition, daily food borne illness risks to individuals include inappropriate home storage, purchasing, and preparation practices. Currently, food safety practices are not taught in any consistent or comprehensive manner in the U.S. Virgin Islands by any other agency or organization. A comprehensive food safety education program could help decrease the incidence of food borne illness outbreaks so that food borne illness does not become a menace to the health of the population.

**2. Scope of the Program**

- In-State Extension

**V(D). Planned Program (Assumptions and Goals)**

**1. Assumptions made for the Program**

- People will be motivated to learn and change their behavior.
- Staff and volunteers can be recruited and trained to perform necessary tasks.
- Internal funding sources will be maintained at current or higher levels.
- External funding opportunities will be secured throughout the course of the program.
- Schools, churches, clinics, and community centers will want the program to be conducted at their facility.

**2. Ultimate goal(s) of this Program**

- To raise awareness among the EFNEP participants about food safety issues related to personal hygiene, food storage, food preparation, and food handling.
- To raise 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).
- To increase enrollment in the EFNEP program, thereby increasing the number of individuals who will receive food safety education.
- To educate EFNEP participants (adults and youth) on basic food safety principles.
- To increase the number of food safety habits



practiced by EFNEP participants.

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

**1. Estimated Number of professional FTE/SYs to be budgeted for this Program**

Year	Extension		Research	
	1862	1890	1862	1890
2008	0.5	0.0	0.0	0.0
2009	0.5	0.0	0.0	0.0
2010	0.5	0.0	0.0	0.0
2011	0.5	0.0	0.0	0.0
2012	0.5	0.0	0.0	0.0

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

**1. Activity for the Program**

• Identify new locations to conduct classes. • Recruit and train staff and volunteers to deliver food safety information to EFNEP participants (adults and youth). • Develop and/or obtain culturally sensitive food safety curriculum appropriate for EFNEP participants (adults and youth). • Develop and maintain relationships with partners including government agencies, clinics, places of worship, public and private schools, senior citizen centers, and day care centers. • Develop a web page that relays information on issues relating to the program.

**2. Type(s) of methods to be used to reach direct and indirect contacts**

Extension	
Direct Methods	Indirect Methods
<ul style="list-style-type: none"> <li>● Other 1 (Fair-type settings)</li> <li>● Education Class</li> </ul>	<ul style="list-style-type: none"> <li>● TV Media Programs</li> <li>● Newsletters</li> <li>● Web sites</li> <li>● Public Service Announcement</li> </ul>

**3. Description of targeted 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.

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

**1. Standard output measures**

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2008	65	5000	200	5000
2009	75	5000	250	5000
2010	100	5000	300	5000
2011	150	5000	400	5000
2012	150	5000	400	5000

**2. (Standard Research Target) Number of Patents**

**Expected Patents**

**2008 :0                      2009 :0                      2010 :0                      2011 :0                      2012 :0**

**3. Expected Peer Review Publications**

Year	Research Target	Extension Target
2008	0	0
2009	0	0
2010	0	0
2011	0	0
2012	0	0

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

**1. Output Target**

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

**2008 :15                      2009 :20                      2010 :25                      2011 :30                      2012 :30**

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

**2008 :3                      2009 :4                      2010 :5                      2011 :6                      2012 :6**

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

**2008 :5                      2009 :6                      2010 :6                      2011 :6                      2012 :6**

- Number of web sites developed and maintained

**2008 :1                      2009 :1                      2010 :1                      2011 :1                      2012 :1**

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

**2008 :4                      2009 :5                      2010 :5                      2011 :5                      2012 :5**

**V(I). State Defined Outcome**

**1. Outcome Target**

Number of adults learning basic food safety information

**2. Outcome Type :** Change in Knowledge Outcome Measure

**2008 :65                      2009 : 75                      2010 : 100                      2011 :150                      2012 : 150**

**3. Associated Knowledge Area(s)**

- 712 - Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occuring Toxins
- 724 - Healthy Lifestyle

**1. Outcome Target**

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

**2. Outcome Type :** Change in Action Outcome Measure

**2008 :60                      2009 : 65                      2010 : 70                      2011 :75                      2012 : 75**

**3. Associated Knowledge Area(s)**

- 703 - Nutrition Education and Behavior
- 712 - Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occuring Toxins
- 724 - Healthy Lifestyle

**1. Outcome Target**

Number of school age children learning basic food safety information

**2. Outcome Type :** Change in Knowledge Outcome Measure

**2008 :200                      2009 : 250                      2010 : 300                      2011 :400                      2012 : 400**

**3. Associated Knowledge Area(s)**

- 703 - Nutrition Education and Behavior
- 712 - Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occuring Toxins
- 724 - Healthy Lifestyle

**1. Outcome Target**

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

**2. Outcome Type :** Change in Action Outcome Measure

**2008 :60                      2009 : 65                      2010 : 70                      2011 :75                      2012 : 75**

**3. Associated Knowledge Area(s)**

- 703 - Nutrition Education and Behavior
- 712 - Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occuring Toxins
- 724 - Healthy Lifestyle

**1. Outcome Target**

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

**2. Outcome Type :** Change in Knowledge Outcome Measure

**2008 :**100                      **2009 :** 100                      **2010 :** 100                      **2011 :**100                      **2012 :** 100

**3. Associated Knowledge Area(s)**

- 703 - Nutrition Education and Behavior
- 712 - Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occuring Toxins
- 724 - Healthy Lifestyle

**1. Outcome Target**

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. Outcome Type :** Change in Knowledge Outcome Measure

**2008 :**100                      **2009 :** 100                      **2010 :** 100                      **2011 :**100                      **2012 :** 100

**3. Associated Knowledge Area(s)**

- 703 - Nutrition Education and Behavior
- 712 - Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occuring Toxins
- 724 - Healthy Lifestyle

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

**1. External Factors which may affect Outcomes**

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

**Description**

• The U.S. Virgin Islands lies in a hurricane prone zone. Natural disasters such as hurricanes will cause power outages that can affect an individual's ability to properly store food supplies. • The cultural environment can affect outcomes because a large number of individuals consume food purchased from mobile food vans. Unfortunately, food vendors who apply for food handlers' cards from the public health department are not required to take a food safety training course. Therefore, individuals may still be at risk for food borne illnesses as a result. In addition, Virgin Island residents often purchase local fish from street vendors. The fish is sold by the side of the road and is often not refrigerated. This practice may also affect program outcomes.

**V(K). Planned Program (Evaluation Studies and Data Collection)**

**1. Evaluation Studies Planned**

- Before-After (before and after program)
- During (during program)

**Description**

• Before-After  Knowledge tests will be administered to EFNEP participants before and after 6-8 week class series.  The nutrient composition of a participant's 24-hour diet recalls before and after a class series will be compared.  Knowledge tests will be administered to volunteers during training sessions. • During  Knowledge tests will be administered to EFNEP participants during 6-8 week class series.  Unit tests will be administered to volunteers as prescribed in training manual.

**2. Data Collection Methods**

- Telephone
- On-Site
- Unstructured
- Observation
- Journals

**Description**

• Survey  Food safety questionnaires will be disseminated on-site in classes to determine the percentage of individuals (adults and children) whose knowledge base has increased since the conclusion of the classes.  Food safety questionnaires will be disseminated on-site in classes to determine the percentage of individuals (adults and children) who have adopted and maintained a new health habit. • Interview: Unstructured  One-on-one informal conversations with EFNEP participants. • Observation  Regular visits to classes conducted by volunteers will be made.  Regular visits to classes conducted by staff will be made. • Journals  Volunteers and staff will be expected to maintain journals documenting the number of classes they have conducted.  Volunteers and staff will be expected to maintain journals documenting the number of individuals (adults and children) who attend their classes.

**V(A). Planned Program (Summary)****1. Name of the Planned Program**

Beef, Dairy and Small Livestock

**2. Brief summary about Planned Program**

The Beef, Dairy and Small Livestock Programs work with a limited number of large livestock farmers and an increasing number of small livestock farmers. Management styles are most commonly casual and informal with intensive principles not employed by the primarily part-time livestock producers. With the development of the islands, many farmers are being forced to raise their stock on smaller parcels of land, thereby increasing the incidences of parasites and forage degradation from overgrazing pressures. Through work with research entities, the program is working to develop hardier strains of forages that will withstand more intense grazing practices. In addition, farmers are being educated as to proper management techniques for heavily stocked pastures. Parasite control issues that develop from intensive grazing are also being explored and dealt with. Because of the climate, parasites, both internal and external, are a common issue year round throughout the livestock industry in the Virgin Islands. Demonstrations and workshop training sessions are being employed to assist producers in evaluating their current livestock housing status and how improvements can address the parasite issue. Parasite surveys are currently being conducted in conjunction with USDA-APHIS to monitor the status of populations and efficacy of current treatments.

Consumers in the Virgin Islands, when asked, would like to purchase locally produced animal products. One of the deterrents is that they are often unaware of where they are available. When available, pricing and consistent quality issues are other hurdles faced by the producers. Implementation of marketing programs to standardize pricing and quality standards, as well as educate consumers as to the availability and benefits of locally produced products, is in process.

**3. Program existence :** Mature (More than five years)

**4. Program duration :** Long-Term (More than five years)

**5. Expending formula funds or state-matching funds :** Yes

**6. Expending other than formula funds or state-matching funds :** No

**V(B). Program Knowledge Area(s)****1. Program Knowledge Areas and Percentage**

- 301 10% Reproductive Performance of Animals
- 302 15% Nutrient Utilization in Animals
- 307 35% Animal Management Systems
- 311 10% Animal Diseases
- 312 10% External Parasites and Pests of Animals
- 315 15% Animal Welfare/Well-Being and Protection
- 603 5% Market Economics

**V(C). Planned Program (Situation and Scope)****1. Situation and priorities**

All livestock producers in the Virgin Islands face similar problems affecting production and profitability, irregardless of the species raised. The major causes of these problems are parasitism, market availability, management techniques, nutrition and fertility.

The cattle industry and, to a lesser extent, the sheep and goat industry in the Virgin Islands is affected by the brown cattle tick – *Boophilus microplus* – which carries several diseases, including anaplasmosis and several strains of babesiosis (piroplasmosis), all commonly referred to as “tick fever.” In addition to this tick, another tick, the African Bont Tick – *Amblyoma varegatum* has resurfaced in St. Croix, bringing with it heartwater disease as well as many secondary complications from the severe bite wounds caused by these ticks. The Bont tick, although primarily a cattle tick, goes through three life stages, feeding on and affecting all animals, both domestic and wild, from poultry on up. The presence of either of these ticks can cause illness and death in a producer’s herd or flock and significantly impacts growth and production. In addition, export sales have been detrimentally affected and often terminated due to the presence of these ticks.

The swine industry is plagued by internal parasites most commonly caused from poor or improper housing. Most hogs in

the Virgin Islands are raised as “free-range” or natural penned with a dirt floor, leading to a high incidence of parasitism.

The second major problem facing Virgin Islands livestock farmers is market availability. Most of the meats and eggs sold and consumed in the Virgin Islands are imported at a low cost, therefore making it very difficult for producers to sell their products.

The next major problems are inadequate knowledge of proper management techniques leading to challenges with nutrition and fertility in the herds and flocks. Many producers in the Virgin Islands operate their enterprises in a part-time and very informal manner. This casual approach often leads to improper or inadequate housing facilities, pasture usage and identification and records management, resulting in infertility, poor growth and a generally unproductive and unprofitable enterprise. In addition, poorly- or non-identified animals create ownership problems for local officials as well as producers when they stray or are lost, especially those involved in incidents of motor vehicle accidents, property damage or injury.

## 2. Scope of the Program

- In-State Extension

### V(D). Planned Program (Assumptions and Goals)

#### 1. Assumptions made for the Program

As real estate becomes more valuable for development purposes, livestock producers face extreme challenges in maintaining sufficient quantity of quality pasturage for their animals

Many of the producers in the Virgin Islands are part time farmers and, as a result, do not have the means to invest significant sums of money in “high tech” solutions to issues

In an economically challenged community, consumers will prefer to purchase locally produced products ONLY IF they are competitive in price and quality

In order to control the spread of parasites, the populations of wild and feral animals must be monitored and kept separate from domestic livestock and domestic livestock must be properly housed

To assure increased fertility and production in domestic livestock, their nutrition levels must be consistently maintained at sufficient levels

Some producers will not voluntarily identify their livestock until required to do so by law

Agriculture Experiment Station research information on improved forages and livestock rearing techniques will be made available to Extension staff for dissemination to the public in a timely manner

Extension staff will work cooperatively with Agriculture Experiment Station staff in addressing areas of concern for local livestock producers

#### 2. Ultimate goal(s) of this Program

To identify and assist in the control of livestock parasites, such as ticks

To increase the nutritional plane of livestock and therefore increase fertility among the herds and flocks

To maintain a mandatory livestock identification program for the Virgin Islands and a brand registry file to assist in identifying owners of livestock

To increase consumer demand for locally produced products

To develop more drought-resistant, high quality forages for use by all livestock producers

To assist producers in obtaining/constructing proper housing systems for their livestock

To increase the number of farmers implementing accurate performance testing and records management systems in their herds/flocks

### V(E). Planned Program (Inputs)

#### 1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2008	2.0	0.0	0.0	0.0
2009	2.0	0.0	0.0	0.0
2010	2.0	0.0	0.0	0.0
2011	2.0	0.0	0.0	0.0
2012	2.0	0.0	0.0	0.0

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

**1. Activity for the Program**

A livestock brand registry will be maintained to assist farmers and livestock agencies in identifying lost or stray livestock  
 A "Locally Produced" program will be started to promote the purchase and consumption of locally produced animal products  
 A parasite monitoring program will be continued for all livestock farms to document parasite populations and concentrations, with data being used in tick control programs  
 Test sites will be set up and monitored for enhanced forage evaluation in pasture and drought conditions  
 A program will be initiated to demonstrate to producers the health and financial advantages of proper and adequate housing for livestock  
 Methods of nutrition evaluation will be demonstrated to producers so that they can determine effects on reproduction and performance

**2. Type(s) of methods to be used to reach direct and indirect contacts**

Extension	
Direct Methods	Indirect Methods
<ul style="list-style-type: none"> <li>● Workshop</li> <li>● Demonstrations</li> <li>● One-on-One Intervention</li> </ul>	<ul style="list-style-type: none"> <li>● Other 1 (Radio)</li> </ul>

**3. Description of targeted audience**

Virgin Islands Livestock Producers  
 Virgin Islands Consumers  
 Virgin Islands Youth

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

**1. Standard output measures**

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



	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2008	350	4000	400	500
2009	400	4000	450	500
2010	450	4000	550	500
2011	500	4000	600	500
2012	500	4000	600	500

## 2. (Standard Research Target) Number of Patents

### Expected Patents

2008 :0                      2009 :0                      2010 :0                      2011 :0                      2012 :0

## 3. Expected Peer Review Publications

Year	Research Target	Extension Target
2008	0	0
2009	0	0
2010	0	0
2011	0	0
2012	0	0

## V(H). State Defined Outputs

### 1. Output Target

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

2008 :4                      2009 :4                      2010 :4                      2011 :4                      2012 :4

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

2008 :2                      2009 :2                      2010 :2                      2011 :2                      2012 :2

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

2008 :150                      2009 :150                      2010 :150                      2011 :150                      2012 :150

- Farms would be visited for parasite monitoring and evaluation

2008 :25                      2009 :25                      2010 :25                      2011 :25                      2012 :25

- Animals would be weighed to monitor performance

2008 :10                      2009 :10                      2010 :10                      2011 :10                      2012 :10

- Animal production would be monitored

2008 :24                      2009 :24                      2010 : 24                      2011 :24                      2012 :24

- Develop a "Buy Local" campaign with local farmers cooperative for use by producers in the community

2008 :1                      2009 :1                      2010 : 1                      2011 :1                      2012 :1

- Provide training per year to farmers in identification methods

2008 :1                      2009 :1                      2010 : 1                      2011 :1                      2012 :1

**V(I). State Defined Outcome**

**1. Outcome Target**

Continue to work toward developing and adopting the use of two drought-resistant and nutritional forages for pastured livestock per year

**2. Outcome Type :** Change in Condition Outcome Measure

2008 :2                      2009 : 2                      2010 : 2                      2011 :2                      2012 : 2

**3. Associated Knowledge Area(s)**

- 302 - Nutrient Utilization in Animals
- 312 - External Parasites and Pests of Animals
- 315 - Animal Welfare/Well-Being and Protection

**1. Outcome Target**

Increase weaning weights of calves in beef herds by 20 pounds

**2. Outcome Type :** Change in Condition Outcome Measure

2008 :4                      2009 : 4                      2010 : 4                      2011 :4                      2012 : 4

**3. Associated Knowledge Area(s)**

- 302 - Nutrient Utilization in Animals
- 307 - Animal Management Systems
- 312 - External Parasites and Pests of Animals
- 315 - Animal Welfare/Well-Being and Protection

**1. Outcome Target**

Decrease production, performance and animal losses due to parasites and poor nutrition by 5% per year

**2. Outcome Type :** Change in Condition Outcome Measure

2008 :5                      2009 : 5                      2010 : 5                      2011 :5                      2012 : 5

**3. Associated Knowledge Area(s)**

- 302 - Nutrient Utilization in Animals
- 307 - Animal Management Systems
- 312 - External Parasites and Pests of Animals
- 315 - Animal Welfare/Well-Being and Protection

**1. Outcome Target**

Increase the sales and consumption of locally produced livestock products such as meat, milk, eggs

**2. Outcome Type :** Change in Condition Outcome Measure

2008 :5                      2009 : 5                      2010 : 5                      2011 :5                      2012 : 5

**3. Associated Knowledge Area(s)**

- 603 - Market Economics

**1. Outcome Target**

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

**2. Outcome Type :** Change in Condition Outcome Measure

2008 :10                      2009 : 10                      2010 : 10                      2011 :10                      2012 : 10

**3. Associated Knowledge Area(s)**

- 307 - Animal Management Systems

**1. Outcome Target**

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

**2. Outcome Type :** Change in Condition Outcome Measure

2008 :10                      2009 : 10                      2010 : 10                      2011 :10                      2012 : 10

**3. Associated Knowledge Area(s)**

- 307 - Animal Management Systems
- 315 - Animal Welfare/Well-Being and Protection

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

**1. External Factors which may affect Outcomes**

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

**Description**

The Virgin Islands lies in a hurricane prone zone. Natural disasters such as hurricanes will disrupt all aspects of life in the Virgin Islands, from supply availability to facilities (and their reconstruction). Severe drought will shift a producer's priorities from improvement to survival when resources must be redirected into providing feed and water

Economy can affect outcomes because as the economy worsens, producers have less disposable resources available for that which they view as "non-essential"

Appropriations changes, Public policy changes, and Government regulations can affect the expected outcomes since producers are often slow and/or reluctant to modify their current behavior to reflect the new environment. Over time, changes are adopted, but outcomes may have to be redirected or modified.

Competing public priorities can affect outcomes when a "knee-jerk" reaction to the "flavor-of-the-month" crisis takes the spotlight and suddenly every public official jumps on the wagon, forgetting all else until the fervor wears off

**V(K). Planned Program (Evaluation Studies and Data Collection)**

**1. Evaluation Studies Planned**

- Before-After (before and after program)
- Comparisons between program participants (individuals,group,organizations) and non-participants
- During (during program)
- Comparisons between different groups of individuals or program participants experiencing different levels of program intensity.

### Description

- Before-After:
  - o Knowledge tests (before, during and after workshops, demonstrations and shortcourses)
- During:
  - o On-Site surveys
  - o Remote surveys
  - o Producer interviews (formal and informal)
  - o Farm location visits/inspections
  - o Examination of slaughter data from Abattoir
  - o Examination of export testing results
  - o Examination of pregnancy testing results
- Comparisons between program participants and non-participants
  - o Examination of slaughter data from Abattoir
- Comparisons between different groups of individuals or program participants experiencing different levels of intensity
  - o Examination of slaughter data from Abattoir
  - o Examination of export testing results

## 2. Data Collection Methods

- Unstructured
- Tests
- Sampling
- On-Site
- Observation
- Mail

### Description

- Sampling:
  - o Periodic collection of milk weights, as per DHIA guidelines
  - o Periodic collection of animal weights
  - o Periodic pregnancy status evaluation through palpation/ultrasound
- Survey:
  - o Questionnaires addressing current status of local producers
  - o Questionnaires querying current needs of local producers
  - o Questionnaires querying current concerns of local producers
- Unstructured interview:
  - o One-on-one informal conversations with producers during arranged farm location visits
  - o One-on-one informal conversations with producers in various public venues (unscheduled)
- Observation:
  - o Farm visits
- Tests:
  - o Export blood and skin testing for diseases, as required by jurisdiction of destination (performed by veterinary agent at origin)
  - o Fertility testing of breeding animals (performed by producers' agent)

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

### 1. Name of the Planned Program

Computer Training and Technology Program

### 2. Brief summary about Planned Program

The University of the Virgin Islands (UVI) Cooperative Extension Service Computer Training and Technology Program is designed to increase the participants' knowledge and usage of computers. The class begins with learning how to use Microsoft Window functions such as drag and drop, right click, left click, boot up, shut down etc. After learning Microsoft Window functions, participants learn word processing using Microsoft Word. The class ends with E-mail/Internet as participants learn how to setup e-mail accounts and search for information using the world wide web. The main objective of this course is to get all participants computer literate, according to UVI standards.

3. Program existence : Intermediate (One to five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : No

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

### 1. Program Knowledge Areas and Percentage

- 903 100% Communication, Education, and Information Delivery

## V(C). Planned Program (Situation and Scope)

### 1. Situation and priorities

Unfortunately in the USVI, there is a large population of computer illiterate adults. Many of these individuals are from low income households and may not have the necessary funds to enable them to acquire the needed computer skills. Some of these individuals need to acquire these computer skills in order to get employment to better their household income.

### 2. Scope of the Program

- In-State Extension

## V(D). Planned Program (Assumptions and Goals)

### 1. Assumptions made for the Program

1. There is a population in the USVI that needs to acquire/increase their knowledge and usage of computer applications. 2. If the population in the USVI that needs to acquire/increase participate in this program they will be able to be more effective in they day to day activities, as such as communicating. 3. If the population in the USVI that needs to acquire/increase participate in this program they will increase their opportunity of acquiring employment.

### 2. Ultimate goal(s) of this Program

Participants will acquire/increase their knowledge and usage of Microsoft Window by 70%. Participants will acquire/increase their knowledge and usage of Microsoft Word by 70%. Participants will acquire/increase their knowledge and usage of E-mail by 70%. Participants will acquire/increase their knowledge and usage of the Internet by 70%.

## V(E). Planned Program (Inputs)

### 1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2008	1.2	0.0	0.0	0.0
2009	1.2	0.0	0.0	0.0
2010	1.2	0.0	0.0	0.0
2011	1.2	0.0	0.0	0.0
2012	1.2	0.0	0.0	0.0

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

**1. Activity for the Program**

Advertise the Computer Training and Technology Program

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

**2. Type(s) of methods to be used to reach direct and indirect contacts**

Extension	
Direct Methods	Indirect Methods
<ul style="list-style-type: none"> <li>● Education Class</li> <li>● Demonstrations</li> <li>● Workshop</li> </ul>	<ul style="list-style-type: none"> <li>● Public Service Announcement</li> </ul>

**3. Description of targeted audience**

The population will consist mainly of computer illiterate adults in the USVI that are from low income households. Also members of the clothing constructions class.

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

**1. Standard output measures**

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2008	80	3000	60	2500
2009	80	3000	60	2500
2010	60	3000	60	2500
2011	60	3000	60	2500
2012	60	3000	60	2500

**2. (Standard Research Target) Number of Patents**

**Expected Patents**

**2008 :0                      2009 :0                      2010 :0                      2011 :0                      2012 :0**

**3. Expected Peer Review Publications**

Year	Research Target	Extension Target
2008	0	0
2009	0	0
2010	0	0
2011	0	0
2012	0	0

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

**1. Output Target**

- Conduct two days workshops of Microsoft E-mail

**2008 :6                      2009 :6                      2010 : 10                      2011 :10                      2012 :12**

- Conduct two days workshops of Microsoft Word

**2008 :6                      2009 :6                      2010 : 10                      2011 :10                      2012 :12**

- Conduct two days workshops of Microsoft Windows

**2008 :6                      2009 :6                      2010 : 10                      2011 :10                      2012 :12**

- Conduct two days workshops of Microsoft Internet

**2008 :6                      2009 :6                      2010 : 10                      2011 :10                      2012 :12**

- Conduct two days workshops on Microsoft Excel

**2008 :6                      2009 :6                      2010 : 10                      2011 :10                      2012 :12**

- Conduct two days workshops on Micorsoft Powepoint

**2008 :6                      2009 :6                      2010 : 10                      2011 :10                      2012 :12**

**V(I). State Defined Outcome**

**1. Outcome Target**

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

**2. Outcome Type :** Change in Condition Outcome Measure

**2008 :80                      2009 : 80                      2010 : 140                      2011 :140                      2012 : 140**

**3. Associated Knowledge Area(s)**

- 903 - Communication, Education, and Information Delivery

**1. Outcome Target**

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

**2. Outcome Type :** Change in Condition Outcome Measure

**2008 :120                      2009 : 120                      2010 : 160                      2011 :160                      2012 : 160**

**3. Associated Knowledge Area(s)**

- 903 - Communication, Education, and Information Delivery

**1. Outcome Target**

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

**2. Outcome Type :** Change in Condition Outcome Measure

**2008 :100                      2009 : 100                      2010 : 140                      2011 :140                      2012 : 140**

**3. Associated Knowledge Area(s)**

- 903 - Communication, Education, and Information Delivery

**1. Outcome Target**

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

**2. Outcome Type :** Change in Condition Outcome Measure

**2008 :120                      2009 : 120                      2010 : 160                      2011 :160                      2012 : 160**

**3. Associated Knowledge Area(s)**

- 903 - Communication, Education, and Information Delivery

**1. Outcome Target**

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

**2. Outcome Type :** Change in Knowledge Outcome Measure

**2008 :80                      2009 : 80                      2010 : 140                      2011 :140                      2012 : 140**

**3. Associated Knowledge Area(s)**

- 903 - Communication, Education, and Information Delivery

**1. Outcome Target**

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

**2. Outcome Type :** Change in Knowledge Outcome Measure

**2008 :80                      2009 : 80                      2010 : 80                      2011 :80                      2012 : 80**

**3. Associated Knowledge Area(s)**

- 903 - Communication, Education, and Information Delivery

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

**1. External Factors which may affect Outcomes**

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

**Description**

{NO DATA ENTERED}



## **V(K). Planned Program (Evaluation Studies and Data Collection)**

### **1. Evaluation Studies Planned**

- Before-After (before and after program)

#### **Description**

Conduct a pre-assessment of all participants' computer skills before they begin the program and a post-assessment after they have completed the program. The participants will also evaluate the instructor and the course at the end of the program.

### **2. Data Collection Methods**

- Telephone
- On-Site

#### **Description**

Surveys will be disseminated to all participants in the Computer Training and Technology Program and analysis will be done to obtain clientele feedback.

**V(A). Planned Program (Summary)****1. Name of the Planned Program**

Eastern Caribbean Extension Outreach and Interchange

**2. Brief summary about Planned Program**

The Cooperative Extension Service (CES), through its affiliated international organizations, the Caribbean Food Crops Society, the Caribbean Association of Researchers and Herbal Practitioners (CARAPA), and the Caribbean Council of Higher Education in Agriculture (CACHE), will continue to assist the Eastern Caribbean countries and the Organization of Eastern Caribbean States with organizational capacity building in working effectively with their local clientele. CES will assist these organizations in strengthening the agricultural network of scientists, farmers and technicians in the Caribbean region. CES will provide technical assistance in agricultural production, processing and distribution to help improve the standard of living of the people of the Eastern Caribbean. CES will strengthen the networking capabilities for the different agricultural projects and also sustain the educational linkages in the Caribbean. We would develop training and transfer functions in specific fields in collaboration with appropriate national and regional bodies in the region.

**3. Program existence :** Mature (More than five years)

**4. Program duration :** Long-Term (More than five years)

**5. Expending formula funds or state-matching funds :** Yes

**6. Expending other than formula funds or state-matching funds :** No

**V(B). Program Knowledge Area(s)****1. Program Knowledge Areas and Percentage**

- 603 10% Market Economics
- 606 10% International Trade and Development
- 903 80% Communication, Education, and Information Delivery

**V(C). Planned Program (Situation and Scope)****1. Situation and priorities**

The U.S. Virgin Islands are in a natural and potentially pivotal position with respect to U.S.-Eastern Caribbean (EC) interchange because of our geographic proximity to the twenty-five main islands/island groups of the Lesser Antilles, the similarities to these in agroclimate, ecology, and socioculture. The U.S. Virgin Islands has become a gateway to the Caribbean. The agriculture sector in the six countries in the Organization of Eastern Caribbean States (OECS) still accounts for 16 percent of regional gross national product, employs 30 percent of the work force, and is a major source of foreign exchange. Yet, the EC islands are all engaged in major diversification of their agriculture and related enterprises, and during the transition, major training and information needs arise, especially in the smaller islands that are not being fully met.

Through the Caribbean Food Crops Society (CFCS), technical assistance has in the past been given to these smaller islands by CES technical personnel whenever the need arises. CFCS is an independent professional organization on inter-disciplinary orientation and membership. Almost all CES specialists and agents are members of this society. The main objective of CFCS is to advance and foster Caribbean food production, processing, and distribution to help improve the standard of living of the people of the Caribbean. The Secretariat of the CFCS is located at UVI/CES, the Director is a member of the Board, and the Associate Director is the General Secretary of the society. This has created networking capabilities for the different agricultural projects, and has strengthened educational linkages in the Caribbean. Proceedings of the annual meetings have been completed under UVI/CES leadership, and assistance has been given in planning of future meetings and general collaboration between countries of the Caribbean. UVI/CES is also a founding member of the Caribbean Association of Researchers and Herbal Practitioners and the Caribbean Council of Higher Education in Agriculture and has played a major role in agricultural exchanges and linkages in the Caribbean.

CES continues to explore opportunities for expanding linkages with individuals and institutions in the agricultural and human resources field. We have the opportunity to develop training and transfer functions in specific fields

**2. Scope of the Program**

- In-State Extension

**V(D). Planned Program (Assumptions and Goals)**

**1. Assumptions made for the Program**

CES will maintain its relationships with CFCS, CACHE, and CARAPA.  
 Existing Extension personnel will be maintained.  
 Extension personnel will continue to be on the Board of Directors of CFCS, CACHE, and CARAPA.  
 External funding will be acquired for personnel travel in the Eastern Caribbean.

**2. Ultimate goal(s) of this Program**

Through existing programs, strengthen educational linkages in agriculture on ten Eastern Caribbean islands.  
 Provide opportunities for training of producers/operators in different aspects of sustainable agriculture, horticulture, germplasm exchange, market identification and development, pest and pesticide management, livestock production, and pasture and forage management.  
 Provide opportunities for the training and growth of Eastern Caribbean youth, leaders, and volunteers in youth organization development.  
 Provide opportunities for consultation in food and nutrition to homemakers on five islands.  
 Provide assistance to CFCS, CACHE, and CARAPA in program coordination, publication and planning of education workshop and training programs.  
 Provide an avenue for marketing of local agricultural products in the Eastern Caribbean.

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

**1. Estimated Number of professional FTE/SYs to be budgeted for this Program**

Year	Extension		Research	
	1862	1890	1862	1890
2008	1.0	0.0	0.0	0.0
2009	1.0	0.0	0.0	0.0
2010	1.0	0.0	0.0	0.0
2011	1.0	0.0	0.0	0.0
2012	1.0	0.0	0.0	0.0

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

**1. Activity for the Program**

Professional linkages will be established with other agricultural organizations in the Eastern Caribbean. Shortcourses, workshops, and training sessions will be conducted for agricultural specialists, youth leaders and volunteers. Extension specialists will provide consultations on food and nutrition programs, sustainable agriculture, horticulture, and livestock production and management. Breeding animals will be exchanged with other islands through the Breeders Exchange Program. A directory of individuals and institutions in agricultural research and development in the Eastern Caribbean will be expanded and updated. UVI/CES telecommunication systems for collaborative training with other regional institutions will be utilized to train extension specialists and agents. Proceedings, newsletters and other publications will be published for CFCS, CACHE, and CARAPA. CES will assist in the planning and execution of international and regional meetings for CFCS, CACHE, and CARAPA.

**2. Type(s) of methods to be used to reach direct and indirect contacts**

Extension	
Direct Methods	Indirect Methods
<ul style="list-style-type: none"> <li>● Group Discussion</li> <li>● Demonstrations</li> <li>● Workshop</li> <li>● Education Class</li> </ul>	<ul style="list-style-type: none"> <li>● Web sites</li> <li>● Newsletters</li> </ul>

**3. Description of targeted 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.

**V(G). Planned Program (Outputs)****1. Standard output measures**

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2008	600	2000	250	1000
2009	700	2000	300	1500
2010	800	2500	350	2000
2011	1000	3000	400	2500
2012	1000	3000	400	2500

**2. (Standard Research Target) Number of Patents****Expected Patents**

2008 :0

2009 :0

2010 :0

2011 :0

2012 :0

**3. Expected Peer Review Publications**

Year	Research Target	Extension Target
2008	0	0
2009	0	0
2010	0	0
2011	0	0
2012	0	0

**V(H). State Defined Outputs****1. Output Target**

- Agricultural linkages will be established with five organizations in the Eastern Caribbean countries.

2008 :5	2009 :5	2010 : 5	2011 :5	2012 :5
● International and regional workshops will be coordinated.				
2008 :5	2009 :5	2010 : 5	2011 :5	2012 :5
● Proceedings, newsletters and other publications will be published for CFCS, CACHE, and CARAPA.				
2008 :3	2009 :3	2010 : 3	2011 :3	2012 :3
● Update and expand directory of individuals and institutions in agricultural research in the Eastern Caribbean.				
2008 :1	2009 :1	2010 : 1	2011 :1	2012 :1
● Animal breeding stock will be exchanged between countries in the Eastern Caribbean.				
2008 :30	2009 :40	2010 : 50	2011 :60	2012 :60
● Extension specialists will provide consultation on sustainable agriculture, horticulture and livestock production and management.				
2008 :5	2009 :5	2010 : 5	2011 :5	2012 :5
● Provide forum for training youth leaders and volunteers (amount of youth trained).				
2008 :200	2009 :300	2010 : 400	2011 :500	2012 :600

**V(I). State Defined Outcome**

**1. Outcome Target**

Agricultural linkages established with regional organizations

**2. Outcome Type :** Change in Condition Outcome Measure

2008 :5	2009 : 5	2010 : 5	2011 :5	2012 : 5
---------	----------	----------	---------	----------

**3. Associated Knowledge Area(s)**

- 606 - International Trade and Development
- 903 - Communication, Education, and Information Delivery

**1. Outcome Target**

Interantional and regional workshops coordinated

**2. Outcome Type :** Change in Condition Outcome Measure

2008 :5	2009 : 5	2010 : 5	2011 :5	2012 : 5
---------	----------	----------	---------	----------

**3. Associated Knowledge Area(s)**

- 606 - International Trade and Development
- 903 - Communication, Education, and Information Delivery

**1. Outcome Target**

Amount of animal breeding stock exported to Eastern Caribbean countries

**2. Outcome Type :** Change in Condition Outcome Measure

2008 :30	2009 : 40	2010 : 50	2011 :60	2012 : 60
----------	-----------	-----------	----------	-----------

**3. Associated Knowledge Area(s)**

- 603 - Market Economics
- 606 - International Trade and Development

**1. Outcome Target**

Directory of individuals and institutions in agricultural research in the Eastern Caribbean

**2. Outcome Type :** Change in Condition Outcome Measure

2008 :1                      2009 : 1                      2010 : 1                      2011 :1                      2012 : 1

**3. Associated Knowledge Area(s)**

- 903 - Communication, Education, and Information Delivery

**1. Outcome Target**

Proceedings, newsletters and other publications published for CFCS, CACHE, and CARAPA

**2. Outcome Type :** Change in Condition Outcome Measure

2008 :3                      2009 : 3                      2010 : 3                      2011 :3                      2012 : 3

**3. Associated Knowledge Area(s)**

- 903 - Communication, Education, and Information Delivery

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

**1. External Factors which may affect Outcomes**

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

**Description**

Natural disasters can adversely impact the scheduling and execution of activiteis. Changes in economy of the Virgin Islands will shift priorities to other programs.

**V(K). Planned Program (Evaluation Studies and Data Collection)**

**1. Evaluation Studies Planned**

- Before-After (before and after program)
- During (during program)

**Description**

Pre and post evaluations will be conducted to assess baseline information on knowledge levels and subsequent increase in knowledge and awareness. Onsite surveys will be conducted.

**2. Data Collection Methods**

- Mail
- Observation
- Sampling
- Structured

**Description**

Periodic random sampling of clients will be conducted to evaluate the progress and success of the program. Surveys will be mailed to program participants for feedback. Structured interviews will be conducted to evaluate the program. Observations will be made during the program activities to improve program delivery and content.

**V(A). Planned Program (Summary)****1. Name of the Planned Program**

Marketable Skills for Limited Resource Families, Youth and Communities

**2. Brief summary about Planned Program**

The Family and Consumer Sciences program has successfully offered workshops, short courses and activities that provide participants the opportunity to explore career options, entrepreneurship and workforce preparation. In 1995, the "Women at the Crossroads" series was offered. In collaboration with the U.S. Department of Labor Women's Bureau, approximately 144 low-income, at-risk women completed this six-week training over a three-year period. The success of this program suggests that this model should be replicated to effectively address the needs of many low-income, at-risk, single parents. Programming focuses primarily on short courses that teach Clothing Construction, Home Decorating, Crafts and Cultural Arts. Many program participants repeat courses from year to year and have developed the skills to become effective volunteers. They have also indicated the need to augment their experiences with workforce preparation skills. The opportunity to learn how to turn their skills into small home-based businesses to help supplement their limited family incomes has also generated considerable interest. To multiply the outreach efforts of a diminishing Family and Consumer Sciences staff, a master volunteer program is needed. Participants who have completed these courses previously, are often excellent candidates to serve as volunteers. They are positively motivated by their experience and now have the appropriate skill set that would enable them to become effective teachers for beginning short courses, or to serve as volunteers working with 4-H youth clientele. Using volunteers would allow a very small staff to maximize and multiply resources and reach a greater number of interested stakeholders.

**3. Program existence :** Mature (More than five years)

**4. Program duration :** Long-Term (More than five years)

**5. Expending formula funds or state-matching funds :** Yes

**6. Expending other than formula funds or state-matching funds :** Yes

**V(B). Program Knowledge Area(s)****1. Program Knowledge Areas and Percentage**

- 801 75% Individual and Family Resource Management
- 802 15% Human Development and Family Well-Being
- 806 10% Youth Development

**V(C). Planned Program (Situation and Scope)****1. Situation and priorities**

Presently, program offerings include Clothing Construction in the fall and spring. Home Decorations and Cultural Arts are the focus in the fall and spring, respectively, in preparation for the annual V.I. Agriculture and Food Fair on St. Croix. A "Sewing with Kids" component is offered in the annual UVI-CES 4-H Summer Academy. In May, 2006, 10 women and one man received completion certificates for the Beginner's Clothing Construction Short Course; five additional women furthered their sewing skills in the Intermediate/Advanced class. As a result of their participation in this FCS outreach effort, 10 individuals are presently furthering their computer skills in the Basic Computer Literacy Course offered in collaboration with the Children, Youth and Families at-Risk (CYFAR) Program. Virgin Islands families, youth and children are impacted by a magnitude of critical issues that adversely affect their quality of life. Limited resources, high unemployment, high cost of living, and a large number of families headed up by single, female heads of households, have guided the formation of various programs. These programs assist families, youth and children in developing the knowledge, skills and attitudes that will enable them to improve their quality of life. The 2003 V.I. Census reports that of all families with children, 41.8% are headed by single mothers. More importantly, 35% of V.I. children, ages birth-18, are living in families headed by single mothers. In 2003, per capita income was \$14,730 and the overall poverty rate increased from 22.7% to 25.6%; furthermore the poverty rate on St. Croix was 30.4%. Single-parent families account for over half the families in poverty, and have a 66% higher risk of being poor. Welfare reform, while well intended, has forced many single-parents to seek menial low paying jobs with no benefits. Many of these underemployed parents are young women with limited educational or social skills. More often than not, they do not have the time, resources or motivation to seek out additional training, whether formal or informal, that would enable them to successfully enter the workforce and become competent, contributing members of their families and communities. Providing innovative, interactive, non-formal opportunities such as the proposed "Women at the Crossroads" series is essential for this target audience. The Women at the Crossroads program allows low income, single parents

and elderly women to take charge in making healthcare and other important life decisions. Receiving this information will increase knowledge, build marketable skills and develop positive attitudes which allow them to become competent, caring, contributing members of their family and community.

**2. Scope of the Program**

- In-State Extension

**V(D). Planned Program (Assumptions and Goals)**

**1. Assumptions made for the Program**

• FCS staffing will increase to include at least one additional professional staff person serving the St. Thomas/St. John district and one additional staff person serving the St. Croix district. • The relatively high cost of travel between islands impedes inter-island program development unless aided by shared program appointments, and increased technology applications such as distance learning, teleconferencing and other forms of remote access. • Each island is unique and has different needs, but shares numerous similarities, resources and opportunities. Through innovative access and design, programs can be developed to more effectively utilize these resources - sharing volunteer, staff and partner resources, and standardized evaluation practices. • Very small in size, and isolated in the Caribbean Sea, the socioeconomic climate is very similar to a U.S. urban setting as opposed to a rural environment. A larger portion of the population resides in the towns of Christiansted and Frederiksted, St. Croix; Charlotte Amalie, St. Thomas; and Cruz Bay, St. John. A disproportionate number (over 35%) is considered low-income and meets the federal poverty threshold. As such, program development initiatives must be selected that accurately reflect these factors. • The V.I. Department of Labor will collaborate to develop the “Women at the Crossroads” curricula. • Current staff members are V.I. residents or long-term residents. Their experience and knowledge of V.I. culture, and community needs make them uniquely qualified to work with the FCS programs. • Families, youth and communities will be interested in learning how FCS programs can benefit them, and will choose to become involved. • Potential volunteers will see the benefit and need to share their skills and experiences with other youth and adults.

**2. Ultimate goal(s) of this Program**

• To build the capacity of individuals and families to improve their quality of life. • To conduct trainings, workshops and programs that provide individuals and families the opportunity to build marketable skills and maximize limited resources. • To promote entrepreneurship as a means of supplementing personal and family income. • To collaborate with government agencies and programs to identify potential clientele and to market program offerings • To partner with community-based individuals and programs to obtain client referrals and to serve as resources and guest presenters. • To collaborate with 4-H to recruit and train low-income, at-risk adults receiving public assistance to participate in the “Women at the Crossroads” series. • To train and certify Master Volunteer Leaders to serve as mentors, provide volunteer orientation and conduct training in various subject matter areas.

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

**1. Estimated Number of professional FTE/SYs to be budgeted for this Program**

Year	Extension		Research	
	1862	1890	1862	1890
2008	2.0	0.0	0.0	0.0
2009	2.0	0.0	0.0	0.0
2010	2.0	0.0	0.0	0.0
2011	2.0	0.0	0.0	0.0
2012	2.0	0.0	0.0	0.0

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

**1. Activity for the Program**

• Conduct 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). • Provide





Year	Research Target	Extension Target
2008	0	0
2009	0	0
2010	0	0
2011	0	0
2012	0	0

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

**1. Output Target**

- Number of short courses conducted

2008 :5                      2009 :5                      2010 : 5                      2011 :5                      2012 :5

- Number of workshops facilitated as part of “Women at the Crossroads” short course

2008 :25                      2009 :25                      2010 : 25                      2011 :25                      2012 :25

- Number of special interest workshops conducted

2008 :2                      2009 :2                      2010 : 2                      2011 :2                      2012 :2

- Number of youth, volunteers, staff and partners trained

2008 :120                      2009 :120                      2010 : 120                      2011 :120                      2012 :120

**V(I). State Defined Outcome**

**1. Outcome Target**

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. Outcome Type :** Change in Knowledge Outcome Measure

2008 :65                      2009 : 70                      2010 : 75                      2011 :75                      2012 : 75

**3. Associated Knowledge Area(s)**

- 801 - Individual and Family Resource Management
- 802 - Human Development and Family Well-Being

**1. Outcome Target**

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. Outcome Type :** Change in Knowledge Outcome Measure

2008 :25                      2009 : 25                      2010 : 25                      2011 :25                      2012 : 25

**3. Associated Knowledge Area(s)**

- 801 - Individual and Family Resource Management
- 802 - Human Development and Family Well-Being

**1. Outcome Target**

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. Outcome Type :** Change in Knowledge Outcome Measure

**2008 :250                      2009 : 300                      2010 : 350                      2011 :400                      2012 : 425**

**3. Associated Knowledge Area(s)**

- 801 - Individual and Family Resource Management
- 802 - Human Development and Family Well-Being

**1. Outcome Target**

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 appliqués, use of adhesives, creativity and layout, project finishing, and glossary of terms

**2. Outcome Type :** Change in Knowledge Outcome Measure

**2008 :35                      2009 : 40                      2010 : 45                      2011 :50                      2012 : 55**

**3. Associated Knowledge Area(s)**

- 801 - Individual and Family Resource Management
- 802 - Human Development and Family Well-Being

**1. Outcome Target**

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. Outcome Type :** Change in Knowledge Outcome Measure

**2008 :150                      2009 : 200                      2010 : 250                      2011 :300                      2012 : 325**

**3. Associated Knowledge Area(s)**

- 801 - Individual and Family Resource Management
- 802 - Human Development and Family Well-Being
- 806 - Youth Development

**1. Outcome Target**

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. Outcome Type :** Change in Knowledge Outcome Measure

**2008 :300                      2009 : 350                      2010 : 400                      2011 :450                      2012 : 475**

**3. Associated Knowledge Area(s)**

- 801 - Individual and Family Resource Management
- 802 - Human Development and Family Well-Being

**1. Outcome Target**

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. Outcome Type :** Change in Knowledge Outcome Measure

**2008 :45                      2009 : 45                      2010 : 45                      2011 :45                      2012 : 45**

**3. Associated Knowledge Area(s)**

- 801 - Individual and Family Resource Management
- 802 - Human Development and Family Well-Being

**1. Outcome Target**

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. Outcome Type :** Change in Knowledge Outcome Measure

**2008 :45                      2009 : 45                      2010 : 45                      2011 :45                      2012 : 45**

**3. Associated Knowledge Area(s)**

- 801 - Individual and Family Resource Management
- 802 - Human Development and Family Well-Being

**1. Outcome Target**

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. Outcome Type :** Change in Knowledge Outcome Measure

**2008 :45                      2009 : 45                      2010 : 45                      2011 :45                      2012 : 45**

**3. Associated Knowledge Area(s)**

- 801 - Individual and Family Resource Management
- 802 - Human Development and Family Well-Being

**1. Outcome Target**

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. Outcome Type :** Change in Knowledge Outcome Measure

**2008 :30                      2009 : 30                      2010 : 30                      2011 :30                      2012 : 30**

**3. Associated Knowledge Area(s)**

- 801 - Individual and Family Resource Management
- 802 - Human Development and Family Well-Being

**1. Outcome Target**

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. Outcome Type :** Change in Knowledge Outcome Measure

**2008 :45                      2009 : 45                      2010 : 45                      2011 :45                      2012 : 45**

**3. Associated Knowledge Area(s)**

- 801 - Individual and Family Resource Management
- 802 - Human Development and Family Well-Being

**1. Outcome Target**

Through “Women at the Crossroads”, participants will build leadership skills needed to become effective volunteer leaders

**2. Outcome Type :** Change in Knowledge Outcome Measure

2008 :20                      2009 : 20                      2010 : 20                      2011 :20                      2012 : 20

**3. Associated Knowledge Area(s)**

- 801 - Individual and Family Resource Management
- 802 - Human Development and Family Well-Being
- 806 - Youth Development

**1. Outcome Target**

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. Outcome Type :** Change in Knowledge Outcome Measure

2008 :45                      2009 : 45                      2010 : 45                      2011 :45                      2012 : 45

**3. Associated Knowledge Area(s)**

- 801 - Individual and Family Resource Management
- 802 - Human Development and Family Well-Being

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

**1. External Factors which may affect Outcomes**

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

**Description**

• The Virgin Islands (V.I.) lies in a hurricane-prone zone. Natural disasters disrupt all aspects of life in the V.I. and can prove to be a stressful challenge for children, youth and families in coping with the resultant upheaval. In the event that a natural disaster were to occur, every effort would be made to provide access to and support of programs such as the American Red Cross and FEMA, to assist clients in obtaining assistance and in regaining some sense of normalcy and comfort. • The V.I. currently has one of the highest unemployment rates in the nation; nearly 40% of our households operate below the poverty threshold, and there is a disproportionately high number of families headed by single, female heads of household. Finding mechanisms to successfully engage this population in ways that are feasible and meaningful for them is a challenge.

**V(K). Planned Program (Evaluation Studies and Data Collection)**

**1. Evaluation Studies Planned**

- Time series (multiple points before and after program)
- During (during program)
- Other (Peer Evaluation)
- Before-After (before and after program)

**Description**

• Before-After:  Pre- and post-tests will be administered before and after each training  Knowledge tests (interactive activities) will be administered to determine familiarity with course content. • During:  Unit tests will be given at the conclusion of each unit.  Interviews and feedback will be provided on an on-going basis.  Personal portfolios will be developed and reviewed. • Time Series:  Participants will be surveyed at designated intervals after graduation for two years to document employment efforts,

successes and challenges. • Other:  Peer evaluations will be conducted periodically and as a part of the closing activities.

## 2. Data Collection Methods

- Whole population
- On-Site
- Tests
- Sampling
- Case Study
- Observation
- Portfolio Reviews

### Description

• Survey:  Questionnaires gathering information on employment search activities, successes and feedback will be collected. • Interview:  Unstructured interviews will be conducted with participants to ascertain progress, satisfaction and goals. • Case Study:  Based on testimonials received during closing activities, selected clients will be included in individual case studies to celebrate program success. • Observation:  Observations will be made during the time activities are performed. • Portfolio Review:  Volunteers will be expected to maintain and share personal portfolios. • Tests:  Periodic tests will be given during training and in-service activities.

**V(A). Planned Program (Summary)****1. Name of the Planned Program**

Natural Resources and Environmental Management

**2. Brief summary about Planned Program**

The Natural Resources and Environmental Management Program (NREM) will promote a better understanding of the issues that affect the health of the Virgin Islands' environment and its inhabitants. Through capacity building and collaboration, NREM will focus the efforts of experts, community groups, students, natural resource managers and others on ways to protect the tightly linked terrestrial and marine habitats in the USVI. The program will foster a more complete understanding of watershed processes, human impacts on watersheds and the ways to protect watersheds. NREM will promote the adoption of best management practices to protect and restore terrestrial and off-shore resources.

**3. Program existence :** Mature (More than five years)

**4. Program duration :** Long-Term (More than five years)

**5. Expending formula funds or state-matching funds :** Yes

**6. Expending other than formula funds or state-matching funds :** Yes

**V(B). Program Knowledge Area(s)****1. Program Knowledge Areas and Percentage**

- 112 20% Watershed Protection and Management
- 123 25% Management and Sustainability of Forest Resources
- 125 10% Agroforestry
- 134 25% Outdoor Recreation
- 136 10% Conservation of Biological Diversity
- 605 10% Natural Resource and Environmental Economics

**V(C). Planned Program (Situation and Scope)****1. Situation and priorities**

• The Virgin Islands' (VI) marine and terrestrial ecosystems are closely inter-related and are heavily impacted by a population of over 110,000 residing on only 130 square miles. • The VI are currently in a state of over-development evidenced by the rapid pace of housing starts, accelerated shopping mall and road construction, tourism growth, critical solid waste disposal problems, and inadequate infrastructures. • Urban, suburban, commercial, and tourism-related development are altering the Islands' fragile ecosystems at a rapid rate because of poor land clearing and landscaping practices that negatively impact flora, wildlife, soil, water resources, and the environmental attractions that support the islands' tourism economy. • The diverse, multi-cultural society reacts differently to issues affecting natural resource management. The small size and vulnerability of the resource base increases the sensitivity of these issues, the level of impact on the resources, and the socio-political complexities of management. • It has become increasingly important to understand the perceptions of these different groups in regards to environmental resources to improve management effectiveness, reduce the social conflicts over resource use, and change practices resulting in ecosystem degradation and loss of biodiversity. • Government agencies have established or increased their environmental education and outreach programs, but these agencies currently do not have the capability to specifically focus on native VI flora. These agencies and others rely on UVI-CES to provide technical expertise and detailed information about native plant communities and their potential usefulness, as well as ecotourism development. • These agencies also need assistance with educating their employees and the general public about the importance of adopting best management practices that protect and restore VI natural ecosystems. • There are also demands from educators, students, the business community, natural resource managers and the general public for technical assistance, training and materials related to natural resources and environmental issues, especially information related to native plants, rare and endangered plants, forest resources, and ecotourism.

**2. Scope of the Program**

- In-State Extension

## V(D). Planned Program (Assumptions and Goals)

### 1. Assumptions made for the Program

• The Virgin Islands rapidly are becoming urbanized without the benefits of the adoption of an official comprehensive land use plan. Although a comprehensive land use plan has been developed; it has not been enacted into law because it is believed by many that a plan will impede development. Excessive and improper landclearing, deforestation, destruction of native habitats and endangered species, lack of conservation easements and general ecosystem degradation result from a lack of comprehensive planning by regulatory agencies, developers and the general public. • Development pressures generated by both by residents and off-island interests can overwhelm conservation efforts and the effective use of best management practices (BMP's). • Most residential properties are small parcels under one acre (usually between 1/8 – 1/2 acre). Small lot size contributes to high impervious cover, introduction of large amounts of non-native vegetation and forest fragmentation with no effective regulation to control deforestation and the loss of natural biodiversity. • It is perceived by some municipal officials that a weak regulatory response and lack of comprehensive planning can be somewhat countered by educating the public about the importance of adopting best management practices (BMP's) to protect and preserve the natural environment. • Information about BMP's and VI forest ecosystems are available through UVI-CES. • Current staff members are VI residents or long-time residents. Their experience and knowledge of the VI natural environment and cultural history attracts many to seek their technical assistance. • UVI-CES maintains some of the best collections of resource materials related to environmental management and the VI natural environment including various reports, inventories, and manuscripts that are extremely rare or non-existent elsewhere. A Virgin Islands Diagnostic Herbarium is housed and available to the public at the St. Thomas UVI-CES office and St. George Botanical Garden on St. Croix. • Many local residents and property owners will be interested in learning more about BMP's, as well as the VI natural environment and what they can do to protect it. • Many people and businesses will also be interested in learning about how VI natural resources can be useful to them, to increase their enjoyment of the natural environment, to help them generate income from natural product development or to assist them in creating attractions for the tourist industry. • Some natural resources managers will continue to adopt environmental management practices suggested by UVI-CES. • Funding previously received from the VI Department of Agriculture's Urban and Community Forestry Program for native tree restoration projects, environmental landscaping workshops and publications on native forest ecosystem may be also available in the future.

### 2. Ultimate goal(s) of this Program

• To promote and emphasize holistic natural resource protection and conservation programs and projects on a watershed basis but also focusing on the potential of individual stewardship. • To increase understanding of human effects on native habitats and natural resources (soil and water resources, native plants); habitat preservation and the incorporation of native plants into landscaping, and the potential usefulness of native plants for medicinal and other purposes. • To annually increase adoption of best management practices that conserve, protect and/or enhance native forest and watershed protection. • To provide interactive educational opportunities for Virgin Islands youth involving natural & cultural resources and other environmental issues to stimulate interest in the development of an ecotourism industry (especially on St. Croix) and careers in environmental management. • To provide information and technical assistance to promote ecotourism (especially on St. Croix) through workshops, advisory committees, training programs for tour guides, and ecotours. • To develop publications related to native plants, habitats, watershed awareness, resource conservation, environmental landscaping and Smart Growth topics/principles. • Continue to work with UVI's Conservation Data Center (CDC) and Center for Marine and Environmental Studies (CMES) in utilizing GIS mapping and other technologies for research and outreach purposes associated with the classification and monitoring of VI plant and marine communities and watershed studies. • Conduct site visits to identify and/or protect native plants and habitats, endangered plants, and to reduce non-native plant invasion. • Facilitate public-private partnerships between UVI, government agencies and community groups.

## V(E). Planned Program (Inputs)

### 1. Estimated Number of professional FTE/SYs to be budgeted for this Program



Year	Extension		Research	
	1862	1890	1862	1890
2008	1.8	0.0	0.0	0.0
2009	1.8	0.0	0.0	0.0
2010	1.8	0.0	0.0	0.0
2011	1.8	0.0	0.0	0.0
2012	1.8	0.0	0.0	0.0

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

**1. Activity for the Program**

• Continue 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 can 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. • Develop 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. • Develop web pages, 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. • Utilize 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. • Identify and/or develop 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. • Provide 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. • Play 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. • Conduct 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. Type(s) of methods to be used to reach direct and indirect contacts**

Extension	
Direct Methods	Indirect Methods
<ul style="list-style-type: none"> <li>● Workshop</li> <li>● Education Class</li> <li>● One-on-One Intervention</li> <li>● Other 1 (Tours)</li> <li>● Other 2 (E-Education)</li> </ul>	<ul style="list-style-type: none"> <li>● Public Service Announcement</li> <li>● TV Media Programs</li> <li>● Other 2 (Fairs)</li> <li>● Other 1 (Publication development)</li> </ul>

**3. Description of targeted 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.

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

**1. Standard output measures**

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2008	400	1000	500	1000
2009	400	1000	500	1000
2010	400	1000	500	1000
2011	400	1000	500	1000
2012	400	1000	500	1000

**2. (Standard Research Target) Number of Patents**

**Expected Patents**

**2008 :0                      2009 :0                      2010 :0                      2011 :0                      2012 :0**

**3. Expected Peer Review Publications**

Year	Research Target	Extension Target
2008	0	0
2009	0	0
2010	0	0
2011	0	0
2012	0	0

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

**1. Output Target**

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

**2008 :1                      2009 :2                      2010 :2                      2011 :2                      2012 :2**

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

**2008 :3                      2009 :3                      2010 :3                      2011 :3                      2012 :3**

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

**2008 :175                      2009 :200                      2010 :200                      2011 :200                      2012 :200**

- Tours of VI natural areas for students and community groups

**2008 :6                      2009 :7                      2010 :7                      2011 :7                      2012 :7**

- E-education – NREM websites updated

2008 :1                      2009 :1                      2010 :1                      2011 :1                      2012 :1

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

2008 :4                      2009 :4                      2010 :4                      2011 :4                      2012 :4

- Demonstration site relating to native plants, environmental management

2008 :2                      2009 :2                      2010 :2                      2011 :2                      2012 :2

- PSA's

2008 :1                      2009 :1                      2010 :1                      2011 :1                      2012 :1

- Fairs

2008 :2                      2009 :2                      2010 :2                      2011 :2                      2012 :2

- TV/Media

2008 :2                      2009 :2                      2010 :2                      2011 :2                      2012 :2

**V(I). State Defined Outcome**

**1. Outcome Target**

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

**2. Outcome Type :** Change in Condition Outcome Measure

2008 :2                      2009 : 2                      2010 : 3                      2011 :3                      2012 : 3

**3. Associated Knowledge Area(s)**

- 112 - Watershed Protection and Management
- 123 - Management and Sustainability of Forest Resources
- 134 - Outdoor Recreation
- 136 - Conservation of Biological Diversity

**1. Outcome Target**

After attending non-formal education programs, one hundred and fifty (150) people or more will adopt recommended landscaping practices, incorporate native plants into their landscapes, protect and/or enhance soil resources for agriculture, construction, and landscaping.

**2. Outcome Type :** Change in Condition Outcome Measure

2008 :200                      2009 : 200                      2010 : 200                      2011 :200                      2012 : 200

**3. Associated Knowledge Area(s)**

- 112 - Watershed Protection and Management
- 123 - Management and Sustainability of Forest Resources
- 136 - Conservation of Biological Diversity

**1. Outcome Target**

Contacts will be made with at least five (5) members of immigrant populations who can serve as community liaisons to promote the adoption of VI laws protecting natural resources and less littering of public recreational areas.

**2. Outcome Type :** Change in Condition Outcome Measure

**2008 :1                      2009 : 1                      2010 : 1                      2011 :1                      2012 : 1**

**3. Associated Knowledge Area(s)**

- 123 - Management and Sustainability of Forest Resources
- 134 - Outdoor Recreation

**1. Outcome Target**

Direct and indirect contacts will cause over (1000) adults and students to adopt practices that protect native plants and their habitats because of their increased understanding of the human effects on native ecosystems.

**2. Outcome Type :** Change in Condition Outcome Measure

**2008 :200                      2009 : 200                      2010 : 200                      2011 :200                      2012 : 200**

**3. Associated Knowledge Area(s)**

- 123 - Management and Sustainability of Forest Resources
- 136 - Conservation of Biological Diversity

**1. Outcome Target**

Over 500 stakeholders (government personnel, developers, community groups and students) will become more aware of the connections between terrestrial and marine communities, how watersheds function, and the importance of watershed protection.

**2. Outcome Type :** Change in Condition Outcome Measure

**2008 :500                      2009 : 500                      2010 : 500                      2011 :500                      2012 : 200**

**3. Associated Knowledge Area(s)**

- 112 - Watershed Protection and Management
- 123 - Management and Sustainability of Forest Resources
- 136 - Conservation of Biological Diversity

**1. Outcome Target**

Watershed research will result in at least three (3) projects within targeted watersheds to protect water quality.

**2. Outcome Type :** Change in Condition Outcome Measure

**2008 :1                      2009 : 1                      2010 : 1                      2011 :1                      2012 : 1**

**3. Associated Knowledge Area(s)**

- 112 - Watershed Protection and Management

**1. Outcome Target**

Five hundred (500) Virgin Islands youth will increase their awareness of VI natural and cultural resources, and careers in environmental management and ecotourism. At least fifteen (15) individuals will be trained as ecohiking guides.

**2. Outcome Type :** Change in Condition Outcome Measure

**2008 :100                      2009 : 100                      2010 : 100                      2011 :100                      2012 : 100**

**3. Associated Knowledge Area(s)**

- 134 - Outdoor Recreation

- 605 - Natural Resource and Environmental Economics

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

### **1. External Factors which may affect 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.)

#### **Description**

• The VI environment is affected by hurricanes, droughts, and Sahara dust. Tsunamis and earthquakes are possibilities. These all have the potential to alter program outcomes. Program outcomes may shift to include disaster assessment and restoration efforts.

• Changes in the local economy can stimulate or diminish successes of outcomes and affect the ability of clients to invest in recommended BMP's; availability of public or private or funding for local conservation projects or to start an ecotourism business, etc.

• Changes in program appropriations may limit staff, materials and equipment, etc. needed to accomplish outcomes.

• Changes in government regulations (i.e. Environmental Protection regulations, Coastal Zone regulations, zoning laws) could require changes to outcome goals.

• Competing public priorities such as public land-use issues, etc. could trigger a shift in program focus and outcomes.

• Competing programmatic challenges could reduce resources and the success of outcomes.

• Changes in populations (immigration, new cultural groupings) are unpredictable and may alter outcomes.

## **V(K). Planned Program (Evaluation Studies and Data Collection)**

### **1. Evaluation Studies Planned**

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

#### **Description**

• Informal interviewing of stakeholder and/or project participants has been used successfully before, during and after projects. Project participants have agreed that these informal and culturally acceptable evaluation methods established good communications that resulted in successful project outcomes.

• Evaluation forms to be filled out after workshops, etc. continue to be distributed.

• Evaluation methods will be strengthened to deal with community-based program development (i.e. home owners association, watershed associations, etc.). Evaluation methods will be strengthened by referring to evaluation resources such as the State Strengthening Evaluation Guide used by the CYFAR program. <http://ag.arizona.edu/fcr/fs/cyfar/cyfernet/site.htm>.

• Recommendations about collecting evaluation information from low-literacy and non-English speaking populations will be reviewed and the potential for program sustainability will be evaluated before new community-based programs or projects are developed.

### **2. Data Collection Methods**

- Sampling
- Mail
- On-Site
- Structured
- Unstructured
- Observation
- Tests

#### **Description**

• Testing methods will be used with school students who participate in environmental education tours. Students will be required to take short written tests before and after the tours. For more accurate data collection, written testing will replace the post-tour oral testing that has been used during the past six years. Teachers will be required to give the pre-tour tests in the classroom to increase their involvement with the tour activity and curriculum provided by UVI-CES.

• Unstructured interviewing of stakeholders or project participants has proven to be a successful way of collecting data in the VI and enlisting investment in a project's positive

outcome, especially when accepted social and cultural norms are observed. Pre-project interviewing helps promote better project design that incorporates the needs of the stakeholders. Interviewing during the project provides information about how well stakeholders are invested in the project; it also gives stakeholders opportunities to critically evaluate the project and provide constructive input. Interviewing near the completion of the project allows adjustments to be made so that all participants identify with the project's outcome. • Observation will continue to be used as a reliable way of data collection, especially for projects that involve easily measurable before and after indicators (i.e., implementation of a master plan or BMP, use of a publication to increase knowledge and change behavior, success of a training course to change the way roadside vegetation is cleared, etc.) • Surveys by mail may be used to assess needs or determine what kind of programs, workshops or publications stakeholders want.

**V(A). Planned Program (Summary)****1. Name of the Planned Program**

Sustainable Agriculture

**2. Brief summary about Planned Program**

The Sustainable Agriculture Program will serve as a broad based umbrella initiative to conduct educational training in several areas, including but not limited to marketing, value added processing, production practices (drip irrigation, rotation, mulching, etc.), composting, computer literacy and record keeping. Through a combination of workshops, shortcourses, lectures, demonstrations, etc. farmers will be trained and encouraged to adopt management, production, processing, and marketing practices that are environmentally responsible and economically viable.

**3. Program existence :** Mature (More than five years)

**4. Program duration :** Long-Term (More than five years)

**5. Expending formula funds or state-matching funds :** Yes

**6. Expending other than formula funds or state-matching funds :** Yes

**V(B). Program Knowledge Area(s)****1. Program Knowledge Areas and Percentage**

- 111 20% Conservation and Efficient Use of Water
- 205 20% Plant Management Systems
- 307 20% Animal Management Systems
- 403 20% Waste Disposal, Recycling, and Reuse
- 601 20% Economics of Agricultural Production and Farm Management

**V(C). Planned Program (Situation and Scope)****1. Situation and priorities**

The Sustainable Agriculture program primarily serves to educate and encourage farmers to adopt sustainable agricultural practices that are environmentally sensitive, economically viable, and enhance the overall well being of the territory. Many of our clients continue to utilize some traditional management and production practices (e.g. hand watering, etc.) that are often inefficient and result in less than optimum yields and economic returns. In addition, most producers operate on public property with inadequate water resources to sustain optimum yields and profitable economic returns. Without proper record keeping practices farmers are often not prepared to take advantage of funding opportunities which can enhance their businesses. Crop and livestock farmers typically sell their products without considering marketing strategies to add value and / or promote the shelf life of their commodities. The sustainability of local farm enterprises can be improved to enhance production levels, operational efficiency, economic return, and environmental stewardship. The long term success of these farms depends upon educational outreach programs that will disseminate information to producers regarding recommended research based management and production practices, record keeping, enhancing water resources, alternative enterprises and commodities, and value added technologies. Virgin Islands crop and livestock farmers are in need of continuous training regarding the latest research based sustainable management and production practices. Producers also need to acquire computer literacy skills in order to develop record keeping systems and improve business management strategies to enhance the sustainability of their farm operations. Infrastructural development for water collection and storage must be improved to increase production levels and economic viability of local farms. Finally, farmers need to increase their knowledge and adoption of marketing strategies, including alternative enterprises and strategies to add value to agricultural commodities to increase potential profits.

**2. Scope of the Program**

- In-State Extension

**V(D). Planned Program (Assumptions and Goals)****1. Assumptions made for the Program**

Our workforce will increase by one additional professional staff during the second through the fourth years of the program. Funding support from the Sustainable Agriculture Research & Education (SARE) Program will continue to be available for the

duration of the program.

Farmers will be motivated to change/enhance their behavior and practiced based on the training and educational initiatives outlined in this Plan of Work.

**2. Ultimate goal(s) of this Program**

- To increase knowledge, awareness, and the adoption of sustainable crop management and production practices by farmers
- To increase knowledge, awareness, and the adoption of sustainable livestock management and production practices by farmers
- To increase knowledge, awareness, and the application of computer literacy to develop record keeping practices to enhance and sustain crop and livestock production systems
- To increase the number of farmers engaging in the recycling of organic matter through the practice of composting
- To increase the availability of water resources for farm production, and to increase the adoption of sustainable crop and livestock production practices that promote the efficient use of water
- To increase the number of producers who adopt alternative enterprises and/or value-added strategies to enhance profits

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

**1. Estimated Number of professional FTE/SYs to be budgeted for this Program**

Year	Extension		Research	
	1862	1890	1862	1890
2008	2.7	0.0	0.0	0.0
2009	2.7	0.0	0.0	0.0
2010	2.7	0.0	0.0	0.0
2011	2.7	0.0	0.0	0.0
2012	2.7	0.0	0.0	0.0

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

**1. Activity for the Program**

1. Shortcourses, workshops, and demonstrations will be conducted to disseminate information about recommended, research based sustainable production practices, including composting, drip irrigation, etc.2. Publications (e.g. fact sheets) and newsletter articles will be developed and published to disseminate information regarding sustainable production and marketing practices.3. Announcements will be made through the print and electronic media to promote educational activities and disseminate information about sustainable agricultural practices.4. Farm visits and telephone contacts will be made to address clientele problems and to disseminate information about the program.5. Workshops and other projects will be conducted in partnership with other entities to implement strategies to increase farm water supply and enhance the efficient use of this resource.

**2. Type(s) of methods to be used to reach direct and indirect contacts**

Extension	
Direct Methods	Indirect Methods
<ul style="list-style-type: none"> <li>● Workshop</li> <li>● Demonstrations</li> </ul>	<ul style="list-style-type: none"> <li>● Public Service Announcement</li> <li>● Newsletters</li> <li>● TV Media Programs</li> </ul>

**3. Description of targeted audience**

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



**V(G). Planned Program (Outputs)****1. Standard output measures**

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2008	300	7000	1500	700
2009	400	7000	1700	900
2010	500	7000	1800	1000
2011	600	8000	1900	1200
2012	600	8000	1900	1200

**2. (Standard Research Target) Number of Patents****Expected Patents**

2008 :0                      2009 :0                      2010 :0                      2011 :0                      2012 :0

**3. Expected Peer Review Publications**

Year	Research Target	Extension Target
2008	0	0
2009	0	0
2010	0	0
2011	0	0
2012	0	0

**V(H). State Defined Outputs****1. Output Target**

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

2008 :10                      2009 :10                      2010 :10                      2011 :10                      2012 :10

- Number of publications

2008 :1                      2009 :1                      2010 :1                      2011 :1                      2012 :1

- Number of announcements through print and electronic media

2008 :20                      2009 :20                      2010 :20                      2011 :20                      2012 :20

- Number of farm visits and telephone contacts

2008 :120                      2009 :120                      2010 :120                      2011 :120                      2012 :120

- Projects to increase farm water supply and water use efficiency

2008 :1                      2009 :1                      2010 : 1                      2011 :1                      2012 :1

**V(I). State Defined Outcome**

**1. Outcome Target**

Increased number of farmers who use sustainable agriculture practices

**2. Outcome Type :** Change in Condition Outcome Measure

2008 :10                      2009 : 10                      2010 : 10                      2011 :10                      2012 : 10

**3. Associated Knowledge Area(s)**

- 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

**1. Outcome Target**

Increased number of sustainable agriculture practices conducted by individual producers

**2. Outcome Type :** Change in Knowledge Outcome Measure

2008 :5                      2009 : 5                      2010 : 5                      2011 :5                      2012 : 5

**3. Associated Knowledge Area(s)**

- 111 - Conservation and Efficient Use of Water
- 205 - Plant Management Systems
- 307 - Animal Management Systems
- 601 - Economics of Agricultural Production and Farm Management

**1. Outcome Target**

Increase in the number of farmers who utilize value added strategies

**2. Outcome Type :** Change in Knowledge Outcome Measure

2008 :5                      2009 : 5                      2010 : 5                      2011 :5                      2012 : 5

**3. Associated Knowledge Area(s)**

- 111 - Conservation and Efficient Use of Water
- 205 - Plant Management Systems
- 307 - Animal Management Systems
- 601 - Economics of Agricultural Production and Farm Management

**1. Outcome Target**

Increase in water resources for producers and adoption of practices to enhance water use efficiency

**2. Outcome Type :** Change in Knowledge Outcome Measure

2008 :25                      2009 : 25                      2010 : 25                      2011 :25                      2012 : 25

**3. Associated Knowledge Area(s)**

- 111 - Conservation and Efficient Use of Water
- 205 - Plant Management Systems
- 307 - Animal Management Systems

### 1. Outcome Target

Increase in the number of farmers who conduct or enhance record keeping practices

### 2. Outcome Type : Change in Knowledge Outcome Measure

2008 :20

2009 : 20

2010 : 25

2011 :25

2012 : 25

### 3. Associated Knowledge Area(s)

- 205 - Plant Management Systems
- 307 - Animal Management Systems
- 601 - Economics of Agricultural Production and Farm Management

## V(J). Planned Program (External Factors)

### 1. External Factors which may affect Outcomes

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

#### Description

1. Natural disasters in general and hurricanes in particular can adversely impact the scheduling and execution of educational activities. This challenge is further complicated by the fact that trainers and the target audiences may be located on separate islands. 2. The state of the local economy can directly and indirectly affect the success of the program by influencing the level of matching state funding available for projects. Local economic conditions can also impact the effectiveness of state funded partner agencies in the execution of planned activities. 3. Changes in public policy can potentially influence priorities and resource allotment to state partner agencies. This would be especially important if policy changes are not sensitive to agricultural development. 4. New government regulations or changes that affect the availability or off-island purchase of agricultural inputs can impact developments in sustainable agriculture. 5. Currently, in the U.S. Virgin Islands public policy supports the tourism industry as the principal source or revenue for the territory. This policy directly impacts decisions regarding the agricultural development of the territory.

## V(K). Planned Program (Evaluation Studies and Data Collection)

### 1. Evaluation Studies Planned

- Before-After (before and after program)
- During (during program)

#### Description

Pre and Post evaluations will be conducted to assess baseline information on knowledge levels and subsequent increase in knowledge and awareness. This method of evaluation will be used especially for shortcourses.

### 2. Data Collection Methods

- Telephone
- Observation
- Mail
- On-Site
- Sampling

**Description**

The progress and success of the program will be evaluated by various methods, including periodic random sampling of clients from our information database. These clients will respond to questionnaires via mailing, telephone or on-site visits. The entire (whole population) will also be targeted for periodic response to questionnaires. All training activities will be evaluated by participants via activity-specific questionnaires. Finally, general observations will be made, especially through personal interaction and site visits to evaluate levels of increased knowledge and the adoption of sustainable agricultural practices. Ongoing observations will be made to monitor the participants increase in knowledge and adoption of sustainable agricultural practices.

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

### 1. Name of the Planned Program

Urban Forestry

### 2. Brief summary about Planned Program

The Urban Forestry program seeks to assist public and private agencies, policy makers, community organizations, and individuals in the preservation, conservation, and management of the urban and suburban tree populations in our communities.

3. Program existence : Mature (More than five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : Yes

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

### 1. Program Knowledge Areas and Percentage

- 123 20% Management and Sustainability of Forest Resources
- 124 70% Urban Forestry
- 125 10% Agroforestry

## V(C). Planned Program (Situation and Scope)

### 1. Situation and priorities

The terrestrial landscape of the Virgin Islands is changing rapidly. Because of limited land space on each island, management decisions concerning the Territories tree populations have become more difficult. Law makers continue to seek to find a balance between changing economic forces, environmental concerns and demographics. As a result, policy decisions create situations that put landowners in making tough decisions about the management of their forest resources. A survey conducted by the Waste Management Authority in 1990 concluded that approximately 48% of the waste stream entering the Territories land fills is yard waste. These materials for the most part can be reused and recycled and provide economic opportunities for entrepreneurs in our communities. Efforts have been made by local authorities over the past 10-15 years to address these issues. Hurricanes and other tropical storms have destroyed and damaged many trees throughout the Territory. Our community's ability to prepare and respond to these disasters is hampered due to a lack of up to date scientific information. This information could have helped to reduce the severity of the damage to our tree populations and improve their response and recovery process.

### 2. Scope of the Program

- In-State Extension

## V(D). Planned Program (Assumptions and Goals)

### 1. Assumptions made for the Program

• Through partnership with local and regional authorities, local policy makers will utilize more expertise and research findings as a tool for establishing policy and guidelines for managing the tree populations in the Territory. • Communities will become motivated to pay closer attention to the management of the trees as a result of the information that they will have received through direct and indirect contact from educational institutions. • Entrepreneurs will find opportunities in the reuse and recycling of yard waste and spawn small industries that will reduce the waste stream entering the landfill.

### 2. Ultimate goal(s) of this Program

• Increase the knowledge and awareness of Virgin Islanders to the benefits and opportunities resulting from applying sound principles and practices to the management the tree populations. • Increase the number of land owners and residents establishing entrepreneurial opportunities for natural resources.

## V(E). Planned Program (Inputs)

### 1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2008	0.8	0.0	0.0	0.0
2009	0.8	0.0	0.0	0.0
2010	0.8	0.0	0.0	0.0
2011	0.8	0.0	0.0	0.0
2012	0.8	0.0	0.0	0.0

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

**1. Activity for the Program**

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

**2. Type(s) of methods to be used to reach direct and indirect contacts**

Extension	
Direct Methods	Indirect Methods
<ul style="list-style-type: none"> <li>● Workshop</li> <li>● Demonstrations</li> <li>● One-on-One Intervention</li> </ul>	<ul style="list-style-type: none"> <li>● Newsletters</li> <li>● TV Media Programs</li> <li>● Other 2 (Website)</li> <li>● Public Service Announcement</li> <li>● Other 1 (Radio appearances)</li> </ul>

**3. Description of targeted audience**

The targeted audience will be public and private land owners and agencies, community leaders and organizations, youth groups, and civic organizations.

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

**1. Standard output measures**

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2008	950	5500	660	1500
2009	1050	6000	760	2000
2010	1500	6500	860	2500
2011	1600	7000	960	3000
2012	1625	8000	960	3100

**2. (Standard Research Target) Number of Patents**

**Expected Patents**

**2008 :0                      2009 :0                      2010 :0                      2011 :0                      2012 :0**

**3. Expected Peer Review Publications**

Year	Research Target	Extension Target
2008	0	0
2009	0	0
2010	0	0
2011	0	0
2012	0	0

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

**1. Output Target**

- Number of educational classes in tree identification  
**2008 :3                      2009 :4                      2010 :4                      2011 :4                      2012 :4**
- Number of workshops/demonstrations in tree pruning  
**2008 :3                      2009 :4                      2010 :4                      2011 :4                      2012 :5**
- Number of educational classes in tree care  
**2008 :3                      2009 :4                      2010 :4                      2011 :4                      2012 :4**
- Number of one-on-one consultation with residents  
**2008 :120                      2009 :125                      2010 :130                      2011 :135                      2012 :140**
- Number of public service announcements  
**2008 :2                      2009 :2                      2010 :2                      2011 :2                      2012 :3**
- Number of articles/publications on tree care and urban forest management  
**2008 :3                      2009 :3                      2010 :3                      2011 :3                      2012 :3**
- Number of fairs and exhibits displaying best management practices and other information pertaining to the Urban Forestry  
**2008 :2                      2009 :2                      2010 :2                      2011 :2                      2012 :2**
- Number of seminars on economic opportunities available through using and/or recycling forest resource  
**2008 :1                      2009 :1                      2010 :1                      2011 :1                      2012 :1**
- Number of residents, non-profit organizations, and public and private entities establishing composting projects  
**2008 :6                      2009 :6                      2010 :7                      2011 :7                      2012 :7**

**V(I). State Defined Outcome**

**1. Outcome Target**

Number of residents, landowners, policymakers will become more aware of the potential economic, social, and environmental contributions of the urban and suburban forest

**2. Outcome Type :** Change in Condition Outcome Measure

**2008 :**350                      **2009 :** 400                      **2010 :** 450                      **2011 :**500                      **2012 :** 500

**3. Associated Knowledge Area(s)**

- 123 - Management and Sustainability of Forest Resources
- 125 - Agroforestry

**1. Outcome Target**

Number of residents and landowners, public and private agencies, and nonprofit organizations will increase their knowledge of the care and management of the urban forest

**2. Outcome Type :** Change in Condition Outcome Measure

**2008 :**700                      **2009 :** 750                      **2010 :** 800                      **2011 :**850                      **2012 :** 850

**3. Associated Knowledge Area(s)**

- 123 - Management and Sustainability of Forest Resources
- 124 - Urban Forestry

**1. Outcome Target**

Number of homeowners, landowners, municipalities will actively reduce, reuse, and recycle yard waste

**2. Outcome Type :** Change in Condition Outcome Measure

**2008 :**150                      **2009 :** 200                      **2010 :** 250                      **2011 :**300                      **2012 :** 300

**3. Associated Knowledge Area(s)**

- 123 - Management and Sustainability of Forest Resources
- 124 - Urban Forestry

**1. Outcome Target**

Number of residents will restore urban trees following hurricanes and tropical storms

**2. Outcome Type :** Change in Condition Outcome Measure

**2008 :**150                      **2009 :** 200                      **2010 :** 250                      **2011 :**300                      **2012 :** 300

**3. Associated Knowledge Area(s)**

- 123 - Management and Sustainability of Forest Resources
- 124 - Urban Forestry
- 125 - Agroforestry

**1. Outcome Target**

Number of landowners and residents will expand entrepreneurial opportunities from the urban and suburban forest resources

**2. Outcome Type :** Change in Condition Outcome Measure

**2008 :**15                      **2009 :** 20                      **2010 :** 25                      **2011 :**30                      **2012 :** 30

**3. Associated Knowledge Area(s)**



- 123 - Management and Sustainability of Forest Resources
- 125 - Agroforestry

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

### **1. External Factors which may affect Outcomes**

- Natural Disasters (drought,weather extremes,etc.)
- Economy
- Populations changes (immigration,new cultural groupings,etc.)
- Government Regulations
- Competing Programatic Challenges

#### **Description**

Hurricanes and other natural disasters force municipalities to move expeditiously to recover and bring some semblance of normalcy back to the affected areas. The severity of the disasters will have an effect on already established recovery plans and practices designed to apply best management practices. The results may be that established recovery plans may be passed or circumvented under emergency powers laws.

An increasing population due to an increase in child births and migration is another factor that may change the outcome of this planned program. Because of the Virgin Islands status as a US territory, increasing numbers individuals from foreign countries are migrating to the Virgin Islands in seeking a better life. As a result, the demand for housing has increased tremendously. Policy makers and municipal authorities may have to change or adjust existing policies and plans thus affecting the decisions of land owners.

## **V(K). Planned Program (Evaluation Studies and Data Collection)**

### **1. Evaluation Studies Planned**

- Before-After (before and after program)
- Retrospective (post program)

#### **Description**

Evaluation tools will be used to gauge the effectiveness of the planned program outputs. Attempts will be made to ascertain the changes in behavior, increase in knowledge and affect on the communities that will benefit from the outputs prescribed through this program.

### **2. Data Collection Methods**

- Observation
- Sampling
- Tests
- On-Site

#### **Description**

Pre and Post test will be used as one of the means of gathering the necessary data to determine the effectiveness of the program. Follow up surveys of samples of past participant will be conducted to determine changes in action had taken place. In the case of the youth testing and observation will serve as the primary means of data gathering of that demographic group.

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

### 1. Name of the Planned Program

Urban Gardening

### 2. Brief summary about Planned Program

The Urban gardening program will provide information, education, and technical advice to home gardeners, nonprofit organizations, public and private agencies, and residents about caring for and cultivating plants.

3. Program existence : Mature (More than five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : Yes

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

### 1. Program Knowledge Areas and Percentage

- 205 75% Plant Management Systems
- 403 25% Waste Disposal, Recycling, and Reuse

## V(C). Planned Program (Situation and Scope)

### 1. Situation and priorities

Virgin Islanders love to garden. It continues to provide mental, physical and economic benefits to young and old. The rising cost of imports for basic necessities including food items has created a desire among residents to reduce their cost of living. A 1997 consumer expenditure study conducted by the University of the Virgin Islands Eastern Caribbean Center showed that the average cost for fruits and vegetable was approximately \$615 per household which ranks the Territory within the top five most expensive states including Washington, D.C. and Hawaii. The cost has increased significantly since then.

Heart disease, cancer, hypertension, and diabetes are the top medical problems facing Virgin Islands residents. Many residents have begun to make life style changes such as getting more exercise, reducing stress levels and changing dietary habits. They are also requesting more information on being able to manage their terrestrial resources more efficiently in order to achieve some of the lifestyle changes that they are seeking.

Additionally commercial growth and expansion reduces the amount of open spaces areas, urban planners are including more green space zones in their recommendations to developers. Cultivated ornamental plants have become more common among and within commercial and domestic structures. Management of these zones is critical in order for the survival of the plants. Education in the most current best management practices will be needed to ensure that the benefit sought by planners and residents is achieved.

### 2. Scope of the Program

- In-State Extension

## V(D). Planned Program (Assumptions and Goals)

### 1. Assumptions made for the Program

Current research on the use of low cost, sustainable technologies already exists.

Additional funding will realized for staff training and program implementation.

V.I. residents will be motivated to use the knowledge received to make changes in the management of their home, school and institutional landscapes.

Horticultural organization will be a catalyst for encouraging change in the wider unreached residents.

The cost of living of homeowners will be positively impacted as a result of this program.

Residents, developers, and policy makers will use the University as the source for capacity building within the community.

### 2. Ultimate goal(s) of this Program

The goal of the Urban Gardening program will be to assist Virgin Islands residents with managing the terrestrial resources around their home, schools, and business.

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

**1. Estimated Number of professional FTE/SYs to be budgeted for this Program**

Year	Extension		Research	
	1862	1890	1862	1890
2008	1.1	0.0	0.0	0.0
2009	1.1	0.0	0.0	0.0
2010	1.1	0.0	0.0	0.0
2011	1.1	0.0	0.0	0.0
2012	1.1	0.0	0.0	0.0

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

**1. Activity for the Program**

Educational class, workshops, seminars  
Development of publications, resource materials, curriculum guides  
Conducting field days, field demonstrations, exhibits and tours  
One-on-one counseling  
On-site visits  
Use of electronic media

**2. Type(s) of methods to be used to reach direct and indirect contacts**

Extension	
Direct Methods	Indirect Methods
<ul style="list-style-type: none"> <li>● One-on-One Intervention</li> <li>● Education Class</li> <li>● Workshop</li> </ul>	<ul style="list-style-type: none"> <li>● Public Service Announcement</li> <li>● TV Media Programs</li> <li>● Other 2 (Website)</li> <li>● Other 1 (Demonstration sites)</li> <li>● Newsletters</li> </ul>

**3. Description of targeted audience**

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

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

**1. Standard output measures**

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2008	950	5500	660	1500
2009	1050	6000	760	2000
2010	1500	6500	860	2500
2011	1600	7000	960	3000
2012	1620	8000	970	3500

**2. (Standard Research Target) Number of Patents**

**Expected Patents**

**2008 :0                      2009 :0                      2010 :0                      2011 :0                      2012 :0**

**3. Expected Peer Review Publications**

Year	Research Target	Extension Target
2008	0	0
2009	0	0
2010	0	0
2011	0	0
2012	0	0

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

**1. Output Target**

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

**2008 :3                      2009 :4                      2010 :4                      2011 :4                      2012 :4**

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

**2008 :3                      2009 :3                      2010 :3                      2011 :3                      2012 :4**

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

**2008 :3                      2009 :4                      2010 :4                      2011 :4                      2012 :4**

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

**2008 :120                      2009 :125                      2010 :130                      2011 :135                      2012 :140**

- Number of public service announcements

**2008 :1                      2009 :1                      2010 :1                      2011 :1                      2012 :1**

- Number of articles/publications on urban gardening management

**2008 :3                      2009 :3                      2010 :3                      2011 :3                      2012 :3**

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

**2008 :2                      2009 :2                      2010 :2                      2011 :2                      2012 :2**

- Number of seminars or tv media appearances/programs on urban gardening

**2008 :1                      2009 :1                      2010 :1                      2011 :1                      2012 :1**

- Number of seminars on radio appearances/programs on urban gardening



- 403 - Waste Disposal, Recycling, and Reuse

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

### **1. External Factors which may affect Outcomes**

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

#### **Description**

Natural disaster such as tropical storms and hurricanes may set back some aspects of this program depending on the severity of these weather events. Because of the resources have to be imported economics and government regulation will play a role in the scope of the success of the program.

## **V(K). Planned Program (Evaluation Studies and Data Collection)**

### **1. Evaluation Studies Planned**

- Before-After (before and after program)

#### **Description**

Evaluation tools will be used to gauge the effectiveness of the planned program outputs. Attempts will be made to ascertain the changes in behavior, increase in knowledge and effect on the communities that will benefit from the outputs prescribed through this program.

### **2. Data Collection Methods**

- Sampling
- On-Site
- Mail
- Observation
- Tests

#### **Description**

The diversity within the targeted population will require a variety of data collection methods. Data from children and youth will be obtained primarily from observation and sampling. Tests and mail will be used to gather data from organizations, public and private agencies and adults.

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

**1. Name of the Planned Program**

Water Quality

**2. Brief summary about Planned Program**

The Water Quality Program provides leadership through educational outreach to empower individuals to change practices and behaviors in order to protect public health and environmental quality in the U.S. Virgin Islands. The program provides information and technical assistance to the public on ways to minimize or prevent Nonpoint Source (NPS) pollution of our ground water and surface waters (including guts, ponds, bays, lagoons and other coastal waters), and promotes the development of a comprehensive watershed management strategies that incorporates the use of low-impact development practices and conservation of natural resources.

**3. Program existence :** Mature (More than five years)

**4. Program duration :** Long-Term (More than five years)

**5. Expending formula funds or state-matching funds :** Yes

**6. Expending other than formula funds or state-matching funds :** Yes

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

**1. Program Knowledge Areas and Percentage**

- 101 10% Appraisal of Soil Resources
- 104 10% Protect Soil from Harmful Effects of Natural Elements
- 111 40% Conservation and Efficient Use of Water
- 112 20% Watershed Protection and Management
- 133 20% Pollution Prevention and Mitigation

**V(C). Planned Program (Situation and Scope)**

**1. Situation and priorities**

Urban, suburban, commercial, and tourism-related developments are distinctly and adversely altering the Virgin Islands' fragile watersheds at a rapid rate. In particular, poor land clearing and landscaping practices are degrading flora, wildlife, soil, and water resources. Sediment resulting from soil erosion on construction sites, dirt roads and other disturbed areas is the largest pollutant of Virgin Islands waters, by volume. Millions of gallons of inadequately treated sewage are pumped into coastal waters daily by way of outfall pipes and failing septic systems, posing human and environmental health threats. Solid waste disposal has reached a crisis situation – the two landfills (on St. Thomas and St. Croix) are unlined, lack leachate collection systems, and are sited within the coastal zone. Future developments, as well as population growth, will further strain the Islands' already inadequate and over-burdened infrastructure.

**2. Scope of the Program**

- In-State Extension

**V(D). Planned Program (Assumptions and Goals)**

**1. Assumptions made for the Program**

- Development pressures generated by both by residents and off-island interests can overwhelm conservation efforts and the effective use of best management practices (BMP's).
- Local agencies charged with environmental regulation and stewardship lack the resources and personnel to deal with the myriad of water quality problems and enforcement issues that they are faced with on a daily basis.
- Multi-organizational efforts can yield effective and efficient water quality outcomes.

**2. Ultimate goal(s) of this Program**

Develop and promote educational programs about health risks associated with water quality impairment, failing septic systems and toxic household products. Protect the quantity and quality of the territory's ground and surface water resources through

educational programs that promote the implementation of low-impact development practices to protect watersheds and aquifers. Increase the public's knowledge of the characteristics and functions of aquatic ecosystems (guts, salt ponds, mangrove lagoons, bays and oceans), including their role within a watershed, and increase knowledge of pollution prevention practices and personal actions they can employ to conserve and protect aquatic ecosystems and watersheds. Increase public understanding and involvement in community decision-making and in the creation of public policy on water resource and environmental quality issues. Develop and deliver educational programs that enable individuals to safeguard their own drinking water quality. Develop and maintain partnerships for more effective and sustained solutions to long-term water quality and quantity issues. Identify and/or develop technical materials related to watershed planning, low-impact development and nonpoint source pollution control practices and systems for use by policy-makers and regulatory personnel and disseminate information related to these topics through the local news media.

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

**1. Estimated Number of professional FTE/SYs to be budgeted for this Program**

Year	Extension		Research	
	1862	1890	1862	1890
2008	1.8	0.0	0.0	0.0
2009	1.8	0.0	0.0	0.0
2010	1.8	0.0	0.0	0.0
2011	1.8	0.0	0.0	0.0
2012	1.8	0.0	0.0	0.0

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

**1. Activity for the Program**

Train local govt. 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. Develop and disseminate locally-oriented outreach materials related to water conservation, drinking water protection, waste water 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. Educate 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. Develop publications, workshops, and presentations that relay information on the issues of watershed protection, non-point source pollution control, drinking water protection, and waste water disposal and best management practices to reduce impacts to the general public.

Utilize 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. Identify and/or develop 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. Provide 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. Conduct 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. Type(s) of methods to be used to reach direct and indirect contacts**

Extension	
Direct Methods	Indirect Methods
<ul style="list-style-type: none"> <li>● Workshop</li> <li>● Other 1 (Tours)</li> <li>● Education Class</li> <li>● One-on-One Intervention</li> <li>● Other 2 (E-Education)</li> </ul>	<ul style="list-style-type: none"> <li>● Public Service Announcement</li> <li>● Other 2 (Fairs)</li> <li>● Other 1 (Publication development)</li> <li>● TV Media Programs</li> </ul>

**3. Description of targeted audience**

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

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

**1. Standard output measures**

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2008	200	1000	200	300
2009	250	1000	200	300
2010	250	1000	200	300
2011	250	1000	200	300
2012	250	1000	200	300

**2. (Standard Research Target) Number of Patents**

**Expected Patents**

2008 :0                      2009 :0                      2010 :0                      2011 :0                      2012 :0

**3. Expected Peer Review Publications**

Year	Research Target	Extension Target
2008	0	0
2009	0	0
2010	0	0
2011	0	0
2012	0	0

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

**1. Output Target**

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

2008 :2	2009 :2	2010 :3	2011 :3	2012 :3
● 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.				
2008 :4	2009 :4	2010 :5	2011 :5	2012 :5
● One on one consultations with residents, government employees, students				
2008 :175	2009 :200	2010 :200	2011 :200	2012 :200
● Tours of VI natural areas with students, community groups and others to raise awareness about watersheds and water quality protection.				
2008 :2	2009 :3	2010 :3	2011 :3	2012 :3
● 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.				
2008 :6	2009 :6	2010 :6	2011 :6	2012 :6
● PSAs				
2008 :1	2009 :1	2010 :1	2011 :1	2012 :1
● Fairs				
2008 :2	2009 :2	2010 :2	2011 :2	2012 :2
● TV/Media				
2008 :2	2009 :2	2010 :2	2011 :2	2012 :2

**V(I). State Defined Outcome**

**1. Outcome Target**

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. Outcome Type :** Change in Condition Outcome Measure

2008 :15	2009 :15	2010 :15	2011 :15	2012 :15
----------	----------	----------	----------	----------

**3. Associated Knowledge Area(s)**

- 112 - Watershed Protection and Management
- 133 - Pollution Prevention and Mitigation

**1. Outcome Target**

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. Outcome Type :** Change in Condition Outcome Measure

2008 :15	2009 :15	2010 :15	2011 :16	2012 :16
----------	----------	----------	----------	----------

**3. Associated Knowledge Area(s)**

- 112 - Watershed Protection and Management

- 133 - Pollution Prevention and Mitigation

**1. Outcome Target**

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. Fifty (50) clients will become aware of the VI laws protecting riparian and wetlands vegetation.

**2. Outcome Type :** Change in Condition Outcome Measure

2008 :10                      2009 : 10                      2010 : 10                      2011 :15                      2012 : 15

**3. Associated Knowledge Area(s)**

- 112 - Watershed Protection and Management
- 133 - Pollution Prevention and Mitigation

**1. Outcome Target**

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. Outcome Type :** Change in Condition Outcome Measure

2008 :25                      2009 : 25                      2010 : 25                      2011 :25                      2012 : 25

**3. Associated Knowledge Area(s)**

- 133 - Pollution Prevention and Mitigation

**1. Outcome Target**

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

**2. Outcome Type :** Change in Condition Outcome Measure

2008 :6                      2009 : 6                      2010 : 6                      2011 :6                      2012 : 6

**3. Associated Knowledge Area(s)**

- 101 - Appraisal of Soil Resources
- 104 - Protect Soil from Harmful Effects of Natural Elements
- 112 - Watershed Protection and Management
- 133 - Pollution Prevention and Mitigation

**1. Outcome Target**

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, 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. Outcome Type :** Change in Condition Outcome Measure

2008 :200                      2009 : 200                      2010 : 200                      2011 :200                      2012 : 200

**3. Associated Knowledge Area(s)**

- 112 - Watershed Protection and Management
- 133 - Pollution Prevention and Mitigation

**1. Outcome Target**

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

**2. Outcome Type :** Change in Condition Outcome Measure

2008 :1                      2009 : 1                      2010 : 1                      2011 :1                      2012 : 1

**3. Associated Knowledge Area(s)**

- 112 - Watershed Protection and Management
- 133 - Pollution Prevention and Mitigation

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

**1. External Factors which may affect Outcomes**

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

**Description**

• The VI environment is affected by hurricanes, droughts, Sahara dust. Tsunamis and earthquakes are possibilities. These all have the potential to alter program outcomes. Program outcomes may shift to include disaster assessment and restoration efforts. • Changes in the local economy can stimulate or diminish successes of outcomes and affect: ability of clients to invest in recommended BMP's; availability of public or private or funding for local conservation projects or to start an ecotourism business, etc. • Changes in program appropriations may limit staff, materials and equipment, etc. needed to accomplish outcomes. • Changes in government regulations (i.e. Environmental Protection regulations, Coastal Zone regulations, zoning laws) could require changes to outcome goals. • Competing public priorities such as public land-use issues, etc. could trigger a shift in program focus and outcomes. • Competing programmatic challenges could reduce resources and the success of outcomes. • Changes in populations (immigration, new cultural groupings) are unpredictable and may alter outcomes.

**V(K). Planned Program (Evaluation Studies and Data Collection)**

**1. Evaluation Studies Planned**

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

**Description**

• Evaluation forms to be filled out after workshops, etc. will continue to be distributed. • Evaluation methods will be strengthened to deal with community-based program development (i.e. home owners association, watershed associations, etc.). • Recommendations about collecting evaluation information from low-literacy and non-English speaking populations will be reviewed and the potential for program sustainability will be evaluated before new community-based programs or projects are developed.

**2. Data Collection Methods**

- On-Site
- Sampling
- Tests
- Observation
- Structured
- Unstructured
- Mail

**Description**

• Unstructured interviewing of stakeholders or project participants has proven to be a successful way of collecting data in the VI and enlisting investment in a project's positive outcome, especially when accepted social and cultural norms are observed. • Observation will continue to be used as a reliable way of data collection, especially for projects that involve easily measurable before and after indicators (i.e., implementation of a master plan or BMP, use of a publication to increase knowledge and change behavior, success of a training course to change the way roadside vegetation is cleared, etc.) • Surveys by mail may be used to determine to assess needs or determine what kind of programs, workshops or publications stakeholders want.