

V(A). Planned Program (Summary)

Program # 6

1. Name of the Planned Program

Climate Change: Urban Forestry Program

Reporting on this Program

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

| KA Code | Knowledge Area | %1862 Extension | %1890 Extension | %1862 Research | %1890 Research |
|---------|---|-----------------|-----------------|----------------|----------------|
| 123 | Management and Sustainability of Forest Resources | 20% | | | |
| 124 | Urban Forestry | 80% | | | |
| | Total | 100% | | | |

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

| Year: 2014 | Extension | | Research | |
|-------------------------|-----------|------|----------|------|
| | 1862 | 1890 | 1862 | 1890 |
| Plan | 1.6 | 0.0 | 0.0 | 0.0 |
| Actual Paid | 1.6 | 0.0 | 0.0 | 0.0 |
| Actual Volunteer | 0.0 | 0.0 | 0.0 | 0.0 |

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

| Extension | | Research | |
|---------------------|----------------|----------------|----------------|
| Smith-Lever 3b & 3c | 1890 Extension | Hatch | Evans-Allen |
| 52000 | 0 | 0 | 0 |
| 1862 Matching | 1890 Matching | 1862 Matching | 1890 Matching |
| 42000 | 0 | 0 | 0 |
| 1862 All Other | 1890 All Other | 1862 All Other | 1890 All Other |
| 12000 | 0 | 0 | 0 |

V(D). Planned Program (Activity)

1. Brief description of the Activity

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

2. Brief description of the target audience

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

3. How was eXtension used?

eXtension was not used in this program

V(E). Planned Program (Outputs)

1. Standard output measures

| 2014 | Direct Contacts Adults | Indirect Contacts Adults | Direct Contacts Youth | Indirect Contacts Youth |
|--------|------------------------|--------------------------|-----------------------|-------------------------|
| Actual | 820 | 5000 | 243 | 600 |

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

Patent Applications Submitted

Year: 2014
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

| 2014 | Extension | Research | Total |
|--------|-----------|----------|-------|
| Actual | 0 | 0 | 0 |

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of educational classes in tree identification

| Year | Actual |
|-------------|---------------|
| 2014 | 2 |

Output #2

Output Measure

- Number of workshops/demonstrations on tree care including pruning, planting, selection etc.

| Year | Actual |
|-------------|---------------|
| 2014 | 2 |

Output #3

Output Measure

- Number of outreach opportunities to aid in the restoration of trees after storms.

| Year | Actual |
|-------------|---------------|
| 2014 | 2 |

Output #4

Output Measure

- Number of one-on-one consultation with residents about tree care.

| Year | Actual |
|-------------|---------------|
| 2014 | 58 |

Output #5

Output Measure

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

| Year | Actual |
|-------------|---------------|
| 2014 | 0 |

Output #6

Output Measure

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

| Year | Actual |
|-------------|---------------|
| 2014 | 4 |

Output #7

Output Measure

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

| Year | Actual |
|-------------|---------------|
| 2014 | 2 |

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

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

Outcome #1

1. Outcome Measures

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

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

| Year | Actual |
|-------------|---------------|
| 2014 | 1159 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

As urban expansion continues to reduce forested areas, public education as to the role of trees in the environment and particularly in urban communities is important. As the VI economy continues to show signs of slow growth, residents continue to look for opportunities to supplement their income. Trees and tree parts that can be turned into saleable art pieces are sent to the landfill to be destroyed. Educating young people is key to ensuring that the next generation can be involved in the management of trees in urban and large forest communities.

What has been done

Extension staff set up displays and provided one-on-one consultations with attendees at the Agriculture and Food Fair of the Virgin Islands and the St. Thomas/St. John Agriculture and Food Fair.

The 8th annual V.I. Woodworkers Expo was held at the UVI Great Hall at the Albert Sheen campus on December 13, 14 & 15 and at the Market Place on St. John December 20, 21, & 22 2013.

During National 4-H week, agriculture and 4-H staff in conjunction with the administration of the Gladys A. Abraham Elementary School conducted a tree planting ceremony on the school's campus.

Extension staff conducted a lecture at the Ulla F. Muller School and Jr. Gardening and Ecology summer camp on the role of trees and how to pick summer fruits without damaging the trees.

Results

Through personal contact, and anecdotal information, ninety-eight percent (98%) of attendees

reported that they are now more aware of the economic and environmental benefits of trees. Approximately two hundred (200) attendees at the agriculture fairs learned of the economic potential for products from tree and tree parts. Eight (8) woodworkers representing all three islands participated in the St. Croix which drew approximately 400 persons to the event. Five (5) woodworkers from the St. Thomas St. John district participated in St. John which drew approximately 300 persons who became more aware of the economic potential of recycling forest product. Approximately seventy-five (75) students and eight (8) teachers and support staff became more aware of the benefits of trees in general and the Moringa tree specifically. Twelve (12) adults and one hundred eighteen (118) youth increased their knowledge of the types of trees that grow on St. Thomas, the role that trees play in the environment and how they should be managed. Forty-six (46) children that participated in the Father/Child activity day sponsored by the Department of Human Services received "Trees Are Good" coloring books.

4. Associated Knowledge Areas

| KA Code | Knowledge Area |
|---------|---|
| 123 | Management and Sustainability of Forest Resources |

Outcome #2

1. Outcome Measures

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

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

| Year | Actual |
|------|--------|
| 2014 | 668 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Planting the right tree in the right place reduces the likelihood of trees coming in contact with utility lines and buildings. Correcting the problem can be costly not only to the homeowner but could spell the demise of that tree. Homeowners, businesses, and organizations plant trees for

symbolic, therapeutic, environmental, and others reasons. Proper planting of trees increases the likelihood of the root system adapting favorably to the soil environment in which it is growing.

What has been done

Extension staff conducted a tree planting demonstration at Afternoon on the Green as part of a tree dedication ceremony for past chairpersons of the annual fund raisers.

During National 4-H week agriculture and 4-H staff in conjunction with the administration of the Gladys A. Abraham Elementary School conducted a tree planting ceremony on the school's campus.

Extension staff conducted a lecture at the Ulla F. Muller School (UFMS) and Jr. Gardening and Ecology Club (JGEC) summer camp on the role of trees and how to pick summer fruits without damaging the trees.

The annual Agriculture and Food Fair of the Virgin Islands provided CES the opportunity to impact a large clientele over a three-day period in a concentrated effort. Extension staff provided literature and conducted one-on-one consultation with attendees on the subject of planting the right trees in the right places.

Home visit and one-on-one contact with residents, and public and private landscape crews have been used to provide them with current tree management information. Radio appearances have also been used to provide general information to a broad audience. On-site visits provided an additional opportunity for hands-on practical demonstration and information transfer.

Results

Approximately seventy-five (75) students and eight (8) teachers and support staff attended the planting of a Moringa tree. Students were actively involved in learning how to plant the tree properly and were also instructed on how to take care of it.

Twenty-five (25) individuals learned the proper way to plant a fully mature potted tree. They also received instruction on the proper care of the tree after planting.

Twelve (12) adults and one hundred eighteen (118) youth increased their knowledge of the types of trees that grow on St. Thomas, the role that trees play in the environment and how they should be managed.

Approximately four hundred thirty (430) individuals were directly impacted and thousands more indirectly by displays and interaction with Extension staff at the annual agriculture fairs.

4. Associated Knowledge Areas

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

Outcome #3

1. Outcome Measures

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

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

| Year | Actual |
|-------------|---------------|
| 2014 | 13 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The percentage of yard waste in the territories landfills is high. Landfill fires are sustained by the wood piles dumped or stored throughout the facility. Shredded yard trimming makes an ideal mulch and reduces the waste stream going into the landfill. Stems, trunks, and branches, can be reused in arts and crafts. More residents should become more aware of the benefits of recycling the yard waste.

What has been done

The 8th annual V.I. Woodworkers Expo was held at the UVI Great Hall at the Albert Sheen campus on December 13, 14 &15 and at the Market Place on St. John December 20, 21, & 22 2013.

Results

Eight (8) woodworkers representing all three islands participated in the St. Croix district and five (5) woodworkers from the St. Thomas/St. John district participated in St. John. These 13 craftsmen demonstrated and displayed reused and recycled tree parts in their works of art.

4. Associated Knowledge Areas

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

Outcome #4

1. Outcome Measures

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

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

| Year | Actual |
|-------------|---------------|
| 2014 | 0 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

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

What has been done

Appearances on local talk shows were the primary means of disseminating general information to residents whose trees were damaged by storms.

Results

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

4. Associated Knowledge Areas

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

Outcome #5

1. Outcome Measures

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

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

| Year | Actual |
|-------------|---------------|
| 2014 | 13 |

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The percentage of yard waste in the territories landfills is high. Landfill fires are sustained by the wood piles dumped or stored throughout the facility. Stems, trunks, and branches, can be reused in arts and crafts. More residents should become more aware of the potential for entrepreneurial opportunities from recycling the trees and tree parts.

What has been done

The 8th annual Virgin Islands Woodworkers Expo was held at the UVI Great Hall St. Croix and the Market Place Shopping Center on St. John. Extension staff coordinated and executed this annual event in cooperation with the National Endowment for the Arts and other local contributors.

Results

Thirteen (13) of the best woodworkers in the territory displayed and sold original works of art from wood primarily derived from trees that would have ended up in the land fill. Approximately seven hundred fifty (750) residents and students became more aware of the opportunity to create a full-time or part-time employment for themselves. The woodworkers sold approximately \$2500.00 worth of products.

4. Associated Knowledge Areas

| KA Code | Knowledge Area |
|----------------|---|
| 123 | Management and Sustainability of Forest Resources |

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Government Regulations
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

V(I). Planned Program (Evaluation Studies)

Evaluation Results

One-on-one and small group interviews were administered at the workshops and public events. Follow up surveying at short-term (3 month) and long-term (6-8 months) were planned to be administered in order to ascertain the level of behavioral changes that have occurred.

Staff shortages and budget cuts have severely hindered the ability to execute plans for some urban forestry projects. The inability to gather follow-up information regarding changes in behavior is an unfortunate consequence of budget and staffing challenges.

Key Items of Evaluation