

V(A). Planned Program (Summary)

Program # 8

1. Name of the Planned Program

Global Food Security and Hunger - Our Environment and Home & Urban Landscapes

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
104	Protect Soil from Harmful Effects of Natural Elements	10%			
111	Conservation and Efficient Use of Water	10%			
112	Watershed Protection and Management	15%			
123	Management and Sustainability of Forest Resources	5%			
133	Pollution Prevention and Mitigation	10%			
135	Aquatic and Terrestrial Wildlife	15%			
216	Integrated Pest Management Systems	5%			
403	Waste Disposal, Recycling, and Reuse	5%			
605	Natural Resource and Environmental Economics	15%			
806	Youth Development	10%			
	Total	100%			

V(C). Planned Program (Inputs)

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

Year: 2010	Extension		Research	
	1862	1890	1862	1890
Plan	0.8	0.0	0.0	0.0
Actual	1.4	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
64059	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
29180	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
11300	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

A multi-agency team from UOG-CES, Guam Department of Agriculture, Farm Services Agency, Department of Public Works, Guam Housing and Urban Renewal Authority, Light House Recovery Center of Salvation Army, Karidat, Treescape Agrisource and the Mayors' offices of Agana and Dededo identified community gardens as one way to provide nutritious produce for the disadvantaged and homeless clients. An added benefit was that participants learned gardening skills that enables them to continue providing nutritious supplemental produce for their meals. Four pilot project sites were selected to start organic community gardens for the disadvantaged on Guam.

UOG CES assisted in the planning process, provided training and technical support and followed up on supporting needs of the community gardening effort at each site. This effort is supported by the gardening and yard care knowledge developed by UOG-CES under earlier programs like the Guam Yard program. Hot peppers, eggplant, tomatoes, green onions, patchay, papayas, and soursop were planted at the various sites. Clients/participants were taught how to transplant vegetables and fruit trees. They were also instructed on plant aftercare. Technical assistance is still being provided on an as needed basis.

The crops produced from the gardens are used to supplement meals for the clients/participants. One of the goals of the project is to allow participants to learn a set of skills they can use to provide food for personal consumption and/or to sell. As of this date, individuals at the four sites have continued cultivating select fruits and vegetables, proving once again the old saying, "give a man a fish and you feed him for a day, teach him to fish and you feed him for life."

In a similar effort, UOG-CES was asked by Guma' Bethesda Latte Center (GBLC) to assist in establishing a community garden. This effort utilized container production at their site for physically and cognitively disadvantaged individuals. Extension met with clients and staff one to two times a week for approximately four months. Clients from the facility grew cucumbers, tomatoes, eggplant, hot peppers, and bedding plants in containers and continued to maintain their garden. While the primary purpose was to provide a recreational activity that builds self-esteem a side benefit of the activities was that it helped clients to improve motor and socialization skills.

Extension personnel made frequent visits to ensure that clients and staff understood the basics of cultivating plants and provided regular monitoring and advice to insure success. One of the most important aspects of the pilot project was to let gardeners see the "fruits of their labor". The clients' self-esteem and confidence were increased when the crops flourished. The activities also provided recreation

and exercise for the clients.

These pilot projects revealed many of the benefits in establishing community gardens but they also identified issues that are important to account for in planning if the gardens are to be self-sustaining over the long run. Several beneficial aspects of the project were recognized and strong desire among the partner agencies for community gardens to "catch on" was engendered. For this to happen, key partners are needed to facilitate in the planning process. A core group of individuals/clients must be identified at each site, that are willing, to commit their time and efforts to "work together" on each garden. Once the logistics are finalized, all supplies and materials assembled, group rules or practices agreed on, training may be initiated. A "Train-the-Trainer" approach should be taken to enable individuals to grow fruits, vegetables, and other types of plants and teach others what they know.

Because there is no shipping involved the produce from community gardens is fresher and more nutritious. Gardeners know what inputs have been used on each crop. Another plus to community gardens is that residents get to know one another better and bonds are created while getting a little exercise, as well.

2. Brief description of the target audience

The primary audience focus for the new Community Gardening Effort was to target disadvantaged groups on our island. The Organic Agriculture effort's primary audience is the general public, especially the home gardeners, and island farmers.

The secondary target audiences are the agricultural professional community on Guam. This program is a collaborative effort to build the capacity and enhance the performance of the agricultural professionals in Guam Cooperative Extension, and partners so these agricultural professionals educational materials that commonly available for public outreach education.

V(E). Planned Program (Outputs)

1. Standard output measures

2010	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	40	1000	30	150
Actual	264	2000	28	0

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

Patent Applications Submitted

Year: 2010
 Plan: 0
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2010	Extension	Research	Total
Plan	0	0	
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of Extension articles

Year	Target	Actual
2010	2	1

Output #2

Output Measure

- Number of workshops

Year	Target	Actual
2010	4	6

Output #3

Output Measure

- Number of Extension Fact Sheets

Year	Target	Actual
2010	1	1

Output #4

Output Measure

- Number of requests for research results and new technology and information
Not reporting on this Output for this Annual Report

Output #5

Output Measure

- Number of one to one intervention

Year	Target	Actual
2010	6	30

Output #6

Output Measure

- Number of newspaper or popular articles

Year	Target	Actual
2010	2	1

Output #7

Output Measure

- Number of Distance Education Workshops for the Pacific Islands.
Not reporting on this Output for this Annual Report

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Number of participants gaining awareness of environmental issues
2	Number of Government professionals trained in environmental issues and possible solutions and practical applications.
3	Number of schools to introduce an environmental curriculum to their students either as class supplement or through after school 4-H activities or field trips.
4	Number of trainers trained in the use of new curriculum modules
5	Number of train the trainer participants utilizing curriculum in trainings (both on Guam and in the Pacific Islands).

Outcome #1

1. Outcome Measures

Number of participants gaining awareness of environmental issues

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	200	320

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

There is a large demand for workshops and demonstrations on the topics of home gardening, community gardening, soil and water conservation, organic agriculture, recycling and other topics with an emphasis on protecting our environment and building our natural resource base.

What has been done

New workshop and demonstration curriculum is developed each year and workshops using materials developed in both the current and previous year are held for the public on these topics. Evaluation regularly indicates a majority of participants increase their knowledge of the covered topics.

Results

In the past year over 320 workshop participants increased their knowledge of gardening and home and yard practices that are beneficial for the environment.

4. Associated Knowledge Areas

KA Code	Knowledge Area
104	Protect Soil from Harmful Effects of Natural Elements
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management
123	Management and Sustainability of Forest Resources
133	Pollution Prevention and Mitigation
216	Integrated Pest Management Systems
403	Waste Disposal, Recycling, and Reuse

605 Natural Resource and Environmental Economics

Outcome #2

1. Outcome Measures

Number of Government professionals trained in environmental issues and possible solutions and practical applications.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	5	14

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Organic Agriculture, soil and water conservation practices, sustainable agriculture, recycling and carbon sequestration are all topics that local agricultural support agencies want their employees trained in.

What has been done

In this period workshops were delivered and curriculum developed for community gardens, organic agriculture, recycling of green waste and shredded paper through carbon sequestration in the soil.

Results

Fourteen professionals have increased their knowledge of these topics and actively participated in the delivery of community workshops on these topics using curriculum jointly developed.

4. Associated Knowledge Areas

KA Code	Knowledge Area
104	Protect Soil from Harmful Effects of Natural Elements
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management
123	Management and Sustainability of Forest Resources
133	Pollution Prevention and Mitigation
403	Waste Disposal, Recycling, and Reuse

605 Natural Resource and Environmental Economics

Outcome #3

1. Outcome Measures

Number of schools to introduce an environmental curriculum to their students either as class supplement or through after school 4-H activities or field trips.

Not Reporting on this Outcome Measure

Outcome #4

1. Outcome Measures

Number of trainers trained in the use of new curriculum modules

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	5	14

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Organic Agriculture, soil and water conservation practices, sustainable agriculture, recycling and carbon sequestration are all topics that local agricultural support agencies want their employees able to deliver educational programs in.

What has been done

In this period workshops were delivered and curriculum developed for community gardens, organic agriculture, recycling of green waste and shredded paper through carbon sequestration in the soil. By participating in these efforts as trainers 14 agriculture support agency personnel and consultants developed additional skills in the use of this common curriculum.

Results

Fourteen trainers are now able to utilize this curriculum on these topics (community gardens, organic agriculture, recycling of green waste and shredded paper through carbon sequestration in the soil) and/or actively participated in the delivery of community workshops on these topics using curriculum jointly developed. Workshops on these topics are now offered more frequently on Guam than in previous years.

4. Associated Knowledge Areas

KA Code	Knowledge Area
104	Protect Soil from Harmful Effects of Natural Elements
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112	Watershed Protection and Management
123	Management and Sustainability of Forest Resources
133	Pollution Prevention and Mitigation
135	Aquatic and Terrestrial Wildlife
216	Integrated Pest Management Systems
403	Waste Disposal, Recycling, and Reuse
605	Natural Resource and Environmental Economics

Outcome #5

1. Outcome Measures

Number of train the trainer participants utilizing curriculum in trainings (both on Guam and in the Pacific Islands).

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	6	9

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

UOG CES partner agencies regularly get requests from individuals, groups and schools for training on gardening, organic agriculture, sustainable agriculture, soil and water conservation, and other topics related to the the home, yard and environment. All recognize that the availability of curriculum materials and demonstration sites leverages each organizations outreach.

What has been done

Curriculum on home and community gardening, sustainable and organic agriculture, soil and water conservation practices developed by the UOG CES over the past years. This development process was in cooperation with partner organizations. Through shared trainings agriculture professionals have become familiar with these materials and are using them in their community outreach programs.

Results

Nine agricultural professionals on island used materials developed under this program in previous years in one or more trainings for schools, community groups and gardeners.

4. Associated Knowledge Areas

KA Code	Knowledge Area
104	Protect Soil from Harmful Effects of Natural Elements
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management
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V(H). Planned Program (External Factors)

External factors which affected outcomes

- Public Policy changes
- Competing Public priorities
- Other (New Governor and so new directors are head of many of the partner agencies. This will affect the program moving into 2011.)

Brief Explanation

The wife of the former Governor of Guam was a big supporter of this program so with the new administration we will need to revisit several of the partnerships since many of the local agencies have new directors. It did not affect 2010 outcomes but it may have an impact on 2011 outcomes.

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- After Only (post program)
- During (during program)

Evaluation Results

Most evaluations indicated positive knowledge change. Often indicating a planned change in practice.

Many evaluations indicate that would like the workshops to be longer (more than just one evening or Saturday morning).

Key Items of Evaluation

When workshops were held on the topic of Organic Agriculture for the general public the attendance was extremely high (50-60) participants. This seems to be a very hot topic in the home and gardening community right now.