Soil and Water Quality Program

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V(A). Planned Program (Summary)

1. Name of the Planned Program

Soil and Water Quality Program

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
102	Soil, Plant, Water, Nutrient Relationships	20%		20%	
111	Conservation and Efficient Use of Water	50%		50%	
403	Waste Disposal, Recycling, and Reuse	30%		30%	
	Total	100%		100%	

V(C). Planned Program (Inputs)

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

Year: 2008	Extension		Research	
	1862	1890	1862	1890
Plan	1.0	0.0	1.0	0.0
Actual	1.0	0.0	0.0	0.0

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

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
28197	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

The NMC-CREES Water Quality projects this past year was aimed to improve farmer profits, to promote the wise use of natural resources and to support the production of local farmer commodities. NMC-CREES with the collaboration of both local and regional partners were able to demonstrate and assist in the development and improvement of farm productions. The year has been dedicated to the contribution and development of alternative Animal Waste Management systems such as the Dry Litter Waste Management System for Swine, Chicken grazing cages, ground cover utilization (perennial peanut) and compositing systems. These projects were implemented for the improvement of soil conditions and fertility, increasing productivity for farmers, while simultaneously reducing the costs of operating the farms.

Efforts continued in 2008 to demonstrate, develop and transfer appropriate technologies to the CNMI that encourage soil and water conservation and sustainable utilization of these resources.Publications and demonstrations were produced in an effort to promote systems such as the Dry Litter Waste Management System for Hog Waste that has gained increased popularity and interest amongst farmers and researchers in the region. Soil sampling, analysis, and recommenda farmers/farmland continued in 2008 to encourage conservative usage of fertilizers and soil amendments. Recycling outreach and education activities continued in collaboration with school children at all levels with many volunteers contributing to recycling efforts at some of the larger events on the island of Tinian such as the Tinian Fiesta and Hot Pepper festival.School children at Tinian High School also created a brochure and radio skits for usage in the outreach component of the recycling promotion project in 2009.

2. Brief description of the target audience

- Government /Agency Collaborators
- All farm crop producers and farm helpers in the CNMI
- Business operators that promote or sell farm product
- Grade school, High School and College students
- Adult Volunteer Leaders (4-H Clubs)

V(E). Planned Program (Outputs)

1. Standard output measures

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	**Target**	**Target**	**Target**	**Target**
Plan	100	500	100	500
2008	75	505	121	150

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

Patent Applications Submitted

Year	Target
Plan:	0
2008:	0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan	1	1	
2008	1	0	1

V(F). State Defined Outputs

Output Target
Output #1

Output Measure

Number of research projects completed on Soil and Water Quality Issues

Year	Target	Actual
2008	1	0

V(G). State Defined Outcomes

O No.	Outcome Name
1	Number of households recycling aluminum cans or other recyclable commodities such as paper and plastic
2	Number of households learning to safely use Rain-catchments systems
3	Number of farmers using Dry Litter Waste Management Systems for Hogs
4	Number of farmers or members of the community learning to compost animal wastes, yard scraps, etc…
5	Number of farmers using Sustainable Agriculture techniques (best management practices) such as cover cropping, mulching, rotational grazing, no-till farming, composting, etc…

Soil and Water Quality Program
Outcome #1

1. Outcome Measures

Not reporting on this Outcome for this Annual Report

2. Associated Institution Types

3a. Outcome Type:

3b. Quantitative Outcome

Year	Quantitative Target	Actual

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area

V(H). Planned Program (External Factors)

External factors which affected outcomes

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

Brief Explanation

The extremely depressed economy has caused many to limit their agriculture endeavors due to the rising cost of production.

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

1. Evaluation Studies Planned

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

Evaluation Results

The main evaluation tool for this program has been before and after studies that allow for direct observation of adopted practices.

Key Items of Evaluation

The first two applicants for implementing Dry Litter Waste Management systems have gone through the application and approval process.These will be the first of their type and are the result of intense collaboration and promotion of sustainable systems.