

Natural Resources and Environment

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V(A). Planned Program (Summary)

1. Name of the Planned Program

Natural Resources and Environment

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			28%	
104	Protect Soil from Harmful Effects of Natural Elements			9%	
111	Conservation and Efficient Use of Water			10%	
112	Watershed Protection and Management			5%	
123	Management and Sustainability of Forest Resources			10%	
133	Pollution Prevention and Mitigation			38%	
	Total			100%	

V(C). Planned Program (Inputs)

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

Year: 2007	Extension		Research	
	1862	1890	1862	1890
Plan	0.0	0.0	3.3	0.0
Actual	0.0	0.0	3.3	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
0	0	164861	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	388513	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	75784	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

-Research on microirrigation scheduling, nitrogen-fixing trees, field extraction and analysis of chemical pesticides, soil conditioners for highly eroded soils, wildfires and forest management, and biodiversity and conservation in Puerto Rico, was conducted according to annual work plans.

- An educational article on the restoration of eroded soils by planting trees and grasses was published in a non-refereed journal; a manuscript entitled "Evaluation of microirrigation levels on growth and productivity of avocado trees" was submitted for publication on a local refereed journal.

-More than fifteen papers were presented in seminars, workshops and conferences to disseminate the findings of these projects. Work continues on developing ways to provide this information to non traditional stakeholders. Results on the role of wildfires and tree response important to forest managers are being shared through a series of interpretative activities and signage. A formal workshop for farmers on microirrigation research activities and results was conducted in collaboration with the Extension Service.

2. Brief description of the target audience

Extension Specialists and professionals, government partners, farmers, consumers, environmental groups, students, forest managers and public users of the forest.

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	0	0	0	0
2007	0	0	0	0

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

Patent Applications Submitted

Year	Target
Plan:	0
2007:	0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan			
2007	0	2	2

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

Oral or poster presentations in professional scientific society meetings resulting from program activities

Year	Target	Actual
2007	3	15

Output #2

Output Measure

Number of Peer Reviewed publications.

Year	Target	Actual
2007	3	2

Output #3

Output Measure

Number of trainings, research demonstration activities and meetings with stakeholders to discuss research results and priorities.

Year	Target	Actual
2007	1	4

Output #4

Output Measure

Number of graduate students completing a MS degree and submitting theses under research projects in this program

Year	Target	Actual
2007	4	3

V(G). State Defined Outcomes

O No.	Outcome Name
1	Number of stakeholders gaining knowledge on natural resources management, dry forest ecology and management, microirrigation scheduling, and other soil enhancement and water conservation practices
2	Number of farmers adopting microirrigation management practices
3	Number of persons adopting practices that prevent dry forest fires
4	Number of farmers adopting methods to increase soil organic matter content
5	Number of farmers reporting increased water use efficiency in their farms
6	Number of persons that adopted practices to improve water resources.
7	Number of fires reported on dry forests
8	Number of watersheds for which a Total Maximum Daily Load (TMDL) for nutrients have been developed

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
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3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
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V(H). Planned Program (External Factors)

External factors which affected outcomes

Economy

Appropriations changes

Public Policy changes

Competing Programmatic Challenges

Other ()

Brief Explanation

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

1. Evaluation Studies Planned

Other ()

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}