

V(A). Planned Program (Summary)

Program # 3

1. Name of the Planned Program

Sustaining Environment, Ecosystems, and Natural Resources

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
101	Appraisal of Soil Resources			5%	5%
102	Soil, Plant, Water, Nutrient Relationships			10%	10%
111	Conservation and Efficient Use of Water			10%	10%
112	Watershed Protection and Management			20%	20%
125	Agroforestry			5%	5%
132	Weather and Climate			5%	5%
133	Pollution Prevention and Mitigation			5%	5%
135	Aquatic and Terrestrial Wildlife			5%	5%
141	Air Resource Protection and Management			5%	5%
216	Integrated Pest Management Systems			5%	5%
306	Environmental Stress in Animals			5%	5%
403	Waste Disposal, Recycling, and Reuse			10%	10%
405	Drainage and Irrigation Systems and Facilities			5%	5%
610	Domestic Policy Analysis			5%	5%
	Total			100%	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	0.0	0.0	22.1	12.0
Actual	0.0	0.0	22.1	12.0

2. Institution Name: Auburn University

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	1200000	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	1200000	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

2. Institution Name: Alabama A&M University

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	0	392502
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	0	392502
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

2. Institution Name: Tuskegee University

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	0	190993
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	0	190993
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

Research was conducted to develop better ways of: managing agricultural wastes; promoting agro-tourism; and analyzing land and water use patterns and resources. Research results are shared with extension personnel for further dissemination, particularly to county agents, producers, industry leaders, policy-makers, citizens, and related federal agency personnel. Additional dissemination of results are through direct contact (such as demonstrations and community meetings), through publications (experiment station bulletins, on-line reports, press releases, as well as scientific journal articles), and may include non-traditional efforts, such as working through community and faith-based groups.

Research was conducted to characterize the digestive utilization ozone-exposed forage by ruminant; precision agriculture practices were developed with Management Approaches Toward Environmental Stewardship for Alabama; research was conducted to develop Systems for Controlling Air Pollutant Emissions and Indoor Environments of Poultry, Swine, and Dairy Facilities; Horticultural Production Practices were developed for Carbon Sequestration and reduce Greenhouse Gas Emission Reduction.

2. Brief description of the target audience

Producers, industry leaders, policy-makers, citizens, and related federal agency personnel.

V(E). Planned Program (Outputs)

1. Standard output measures

2010	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	1200	9000	300	900
Actual	1200	9000	500	1200

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	50	
Actual	0	60	60

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- publications

Year	Target	Actual
2010	50	60

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Estimated tourism receipts = \$7.6 billion in 2005. Success of this program will result in maintenance or increase in revenue (medium term outcome).
2	Fish consumption advisories in sampled waters = 26 instances in 2004 (ADEM water board). Success of this program will result in decline of water contaminants that accumulate in fish, and consumption advisories will also subsequently decline. (Long-term outcome)
3	Incidence of ground water contamination of ~ 5000 sampled sites = 20% in 2002-2003. Success of this program will result in a decline of contaminant incidence (medium term outcome).

Outcome #1

1. Outcome Measures

Estimated tourism receipts = \$7.6 billion in 2005. Success of this program will result in maintenance or increase in revenue (medium term outcome).

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

Fish consumption advisories in sampled waters = 26 instances in 2004 (ADEM water board). Success of this program will result in decline of water contaminants that accumulate in fish, and consumption advisories will also subsequently decline. (Long-term outcome)

2. Associated Institution Types

- 1862 Research
- 1890 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	24	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Environmental pollutions cause major economic losses. On the cost and places close to the watershed, environmental pollution causes fish consumption advisories in sample waters. Research need to be conducted to monitor environmental pollutions.

What has been done

Research was conducted to prevent and reduce environmental impact of agricultural activities.

Results

Fish consumption advbisories were significantly down in recent years.

4. Associated Knowledge Areas

KA Code	Knowledge Area
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101	Appraisal of Soil Resources
102	Soil, Plant, Water, Nutrient Relationships
112	Watershed Protection and Management
133	Pollution Prevention and Mitigation
135	Aquatic and Terrestrial Wildlife
403	Waste Disposal, Recycling, and Reuse
610	Domestic Policy Analysis

Outcome #3

1. Outcome Measures

Incidence of ground water contamination of ~ 5000 sampled sites = 20% in 2002-2003. Success of this program will result in a decline of contaminant incidence (medium term outcome).

Not Reporting on this Outcome Measure

V(H). Planned Program (External Factors)

External factors which affected outcomes

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

Brief Explanation

The economic crisis has had a negative impact on this program.
Natural forces can have a fundamental impact on environment and climate change that are well beyond human control.

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

1. Evaluation Studies Planned

- Retrospective (post program)
- During (during program)

Evaluation Results

Good progress has been made in the areas of environmental studies, natural resource conservation and utilization, and climate change.

Key Items of Evaluation

Water research is a leading research area in Alabama under this program. Water use and reuse, quantity and quality issues are becoming more and more important. The Water Resources Center at Auburn University is a hub of water research. Alabama Water Watch Program has been recognized by EPA to be a role model for the nation. The outreach programs of Alabama Water Watch have established similar Water Watch programs around the world.

Precision agriculture research has generated significant economic impact for the state.

In 2010, the Gulf Oil Spill had a major impact on the region's economy. The policy makers are facing a great delima: One the one hand, we need to be aware of the environmental and ecological impact of the oil spill and stress the need for research; on the other hand, we need to encourage the public to come to the Gulf of Mexico beaches to spend their time here. This is a very difficult situation, and governmental research need to be enhanced to study the impact of the oil spill.