Portfolio Annual Report 2008: Farm Management for Sustainability

United States Department of Agriculture
Cooperative State Research, Education, and Extension Service
Office of Planning and Accountability

August 2008

Table of Contents

Portfolio Annual Report

Executive Summary

The West Virginia University Extension Service observes that "farm management is not a series of canny, split second, or 'heat of the battle' maneuver skills that are innately personal." Farm management is a learned set of skills that allows the manager to make informed decisions and to implement changes that will move the operation toward its goals, including the goal of sustainability.

In 2008, the Farm Management and Agriculture Structures portfolio was restructured, realigned and renamed to incorporate and capture important efforts underway historically and currently within the land grant and extension system and CSREES partners in the public and private sector to strengthen United States farms, ranches and working lands. This new portfolio is now better situated to capture the efforts underway to sustain and improve viability of the nation's farms and farm families.

This portfolio has been renamed Farm Management for Sustainability and has been realigned to house several existing and new Primary Knowledge Areas, Secondary Knowledge Areas, and Key Programs essential to demonstrate the breadth and scope of research, education and extension activities related to farm management and sustainability. This newly restructured portfolio, *Farm Management for Sustainability*, comprises 3 primary Knowledge Areas ((KAs), 5 secondary KAs and several key programs. Three of the key program areas are mandated and their inclusion into this portfolio highlights the agency's commitment to those critical issues and sustainability of the farming community.

Two key performance measures (Risk Management Education and SARE) demonstrate the extent to which this portfolio has made significant progress in increasing producers' knowledge of principles and techniques of risk management as well as helping farmers and ranchers to adopt new techniques and production practices that helped them derive economic, environmental or quality-of-life benefit from a change in practice. Some of the key outcomes are highlighted below.

Primary KAs

KA 601: Annie's Project funding began in the North Center Region Risk Management Education (RME) program, and continues to grow beyond the region and throughout the country. Over 20 states are currently involved in ongoing Annie's Project workshop activities with an additional ten states being trained in the program's protocol for rollout in 2008. Over 5000 women are anticipated to be served in 2008. Participants gained a significant amount of knowledge from those training activities in all critical areas identified by the project: 9.2% increased their knowledge in production risk; 34.6%

increased their knowledge in marketing risk; 32.3% increased their knowledge in financial risk; 33.3% increased their knowledge in legal risk; and 42.3% increased their knowledge in human resources risk.

In Minnesota, estate planning and farm business succession planning continues to be of high interest. Utilizing FINBIN balance sheet values for non-farm (personal) assets of $177,156 multiplied by the 172 farm units that had started or completed their farm personal estate plan in the program, the total financial impact resulting from the program is $20.2 million or $38,455.78 per participant.

KA 901: SARE entered its 20th anniversary year and to date has funded over 3000 projects through its regionally-focused program delivery. Over 10,000 farms and ranches have been assisted by the SARE program in learning more about and adopting practices on their farms or ranches that balance environmental, economic and social concerns towards achieving a more fully sustainable operation. Surveys of farmers, extension educators, and researchers help quantify that SARE is achieving results on the ground. A 2005 survey of farmers and ranchers who received western SARE grants reveals that grant recipient experiences were overwhelmingly positive:

- 64 percent said their SARE project helped them achieve higher sales
- 41 percent reported increased net income
- 79 percent experienced improved soil quality
- 69 percent saw increased wildlife habitat

KA 723: During 2006-07, AgrAbility programs directly served 1293 farmers/ranchers with worksite visits which allowed many of them to continue working in their chosen profession. Without this program, a majority of these farmers/ranchers would have increased risk of secondary injuries if they continued in their profession or would seek employment outside of their profession. One State and Regional AgrAbility Project (SRAP), purchased assistive technology during the past year for $3 million and provided state vocational rehabilitation services for 126 farmers

Secondary KAs

KA 602: The National Farm Extension Income Tax Committee conducted over 100 tax clinics during the reporting period, as it has been doing for the past 50 years. The tax clinics assisted farmers, ranchers, and their financial and legal advisors in understanding the tax provisions important to creating viable farm operations. The Committee met in May 2008 with the Internal Revenue Service to craft Publication 225, which is the Farm and Ranch Tax Guide.

KA 605: This KA focuses on understanding economic relationships, decisions, and impacts relating to the management and use of public and private natural resources, and the environment. In Kentucky, 3,536 loggers working in Kentucky representing over 2,988 small businesses employ 9,263 individuals generating $895,042,950 annually through the delivery and primary processing of timber. Pre- and post-training testing

indicated an average 66% increase in knowledge. Post-training evaluation indicated that a total of 750 small logging firms were able to comply with state regulations and 229 of these were new firms that were provided the necessary training to comply with state law requirements enabling them to continue logging. These firms provide income for 2,236 individuals (owners or employees) the majority in rural and semi-rural economies. Environmental assessment of program participants indicated that best management practices usage ranged from 80 to 90 percent for streamside management zones and haul road and skid trail drainage control practices to 30 to 40 percent for the use of improved stream crossings and successful re-vegetation of skid trails. The end result was 128 perennial streams and 354.9 intermittent streams were provided protection from sediments.

KA 607: This KA provides insight and understanding into the demands, preferences, behavioral responses, and needs of individuals and consumers. In 2008, three educators from Iowa and Illinois Extension spent one week each in Washington, DC. They presented seminars on Annie's Project; connected with strategic partners in USDA, the U.S. Treasury Department, the Federal Reserve Board, a Russian delegation funded by World Bank, and the American Savings Education Council, and provided guidance for national leadership to link professionals working on farm finance and family finance. An Extension webcast led by these individuals focused on integrating farm and family finances drew more than 120 participants from 13 States, increasing knowledge and understanding among education professionals in how farm finances and family finances curricula can be intertwined to achieve greater financial security for farm families.

Key Programs

Section 2501: The 2501 program funded projects designed to address the unique challenges faced by farmers and/or ranchers who are socially disadvantaged farmers and ranchers. Georgia's Federation of Southern Cooperatives' 2501 project continues to build a Regional Marketing System that link socially disadvantaged producer cooperatives in Georgia, Alabama, Mississippi and South Carolina. This increases the producers' opportunities in both commercial and direct marketing. There was a 20% increase in acreage devoted to alternative crops including seedless watermelon and a variety of vegetables giving producers a broader market. There was a 38% increase in sales for participating producers through farmers' markets, retail grocers, farmer-owned processing operations and institutional buyers. For example, by moving to production of seedless watermelon (desired in high-end market), farmer prices once .05 per pound, went up to $.30 per pound. The average income of farmers participating in the watermelon project has increased by 5%.

NRI Agricultural Prosperity for Small and Medium Sized Farms: This program focuses on interdisciplinary studies to improve our understanding of the interactions between the economic and environmental components important to the long-term viability, competitiveness and efficiency of small and medium-sized farms (including social, biological and other components, if necessary). While small and medium-sized farms account for less than 25% of the value of all agricultural products sold in the U.S.,

the long-term viability of these farms is critical to the prosperity of rural people and places as these farms account for approximately 92% of all farms in the U.S. The project provided funds to Alabama A&M University, for a project entitled, “Promoting Value Added Enterprises Among Small and Medium-Sized Farms in Alabama”, in which the university assessed the potential for small and medium sized farmers in Alabama to produce value added specialty products; identifying the impact of producing these crops and the profitability of these value-chains; and developing and implementing an operational outreach and technical assistance program to enhance participation by small and medium-sized farmers.

Section I: Portfolio Overview

Portfolio Planning

Portfolio Mission: The mission of the Farm Management for Sustainability Portfolio is to capture the depth and breadth of research, education and extension activities related to the fundamental health of the farming enterprise regardless of its size, location, or farming methods used; the health and safety of the farm owner, operator or farm worker; the financial condition of the farm family; and types of business enterprises associated with the farm or ranch..

Portfolio Vision: To improve the sustainability, profitability and viability of the nation's farms, ranches and working lands and the health and well-being of those families owning, operating or working those lands.

Portfolio Introduction:
This portfolio is about farm management for sustainability. The U.S. agricultural sector must be able to quickly respond to changing political, economic, technological, environmental, and consumer-driven market forces. Agricultural enterprises – regardless of their size or production methods - are constantly affected by external factors such as weather and growing conditions, diseases and pests, financial conditions, cultural practices, and consumer demand. New and emerging risks associated with domestic and international policy, genetic technology, exotic invasive species, and complex agricultural diseases that can affect humans defy conventional means of identification, quantification, and management. Challenging economic times for the society at large translate into unique challenges for the farming or ranching operation.

To face up to those challenges, CSREES provides funds to the land grant system to generate knowledge through research, education, and education to contribute to the improvement and strengthening of dynamic agricultural systems. The application of this knowledge makes it possible to identify, assess, and manage risk and improve viability, providing relevant education, and extending information and practices. This in turns leads to improving production and market decision-making, as well as strengthen the families associated with farming and ranching through enhanced risk management. The overall objective of farm management for sustainability is to lend support to and ensure the, examination of sustainability in farming and ranching practices, and generally improving the farmer or rancher's ability to analyze and make informed decisions.

Portfolio's Linkage to CSREES Strategic Plan
This portfolio supports the Agency's strategic goals 2 "Enhance the Competitiveness and Sustainability of Rural and Farm Economics", and 3 "Support Increased Economic Opportunities and Improved Quality of Life in Rural America". The mission of the CSREES is to advance knowledge for agriculture, the environment, human health and well-being and communities, which CSREES fulfills by leading the advancement of knowledge through its vital linkages with the components of a broad-based, national agricultural higher education, research, extension system, utilizing the partner resources

of the USDA with land grant and other colleges and universities, and public and private laboratories. CSREES sponsors research and education programs to protect our food and fiber supply from the farm to the consumer, and finding environmentally and economically sustainable ways to develop the most successful agricultural production system possible. A strategic plan for this portfolio will be developed and guided by the roadmap for Agriculture Economics and Rural Communities mandated by Title VII of the Food, Conservation, and Energy Act of 2008. It will include strategies similar to these listed here and those contained in the strategic plan of USDA, REE, and CSREES.

CSREES Supported Goal:
This portfolio supports strategic goal number two, entitled "Enhance the Competitiveness and Sustainability of Rural and Farm Economics" and strategic goal three "Support Increased Economic Opportunities and Improved Quality of Life in Rural America" CSREES supports activities to enhance competitiveness and sustainability of rural and farm economies, ranging from the development of new products to improvements in productivity and financial management. Education programs strengthen the foundation for this goal by building capacity in the agricultural research and extension system and training the next generation of scientists and educators.

CSREES Supported Objective:
This portfolio supports objective 2.3, Provide Risk Management and Financial Tools to Farmers and Ranchers, objective 3.1, Expand Economic Opportunities in Rural America by Providing Research, Education, and Extension to Create Opportunities for Growth. CSREES' Objective 2.3 focuses on providing risk management and financial tools for farmers and ranchers. Agricultural producers are subject to a wide array of natural, financial and market risks. Farming in the 21st century requires substantial resources and extensive management skills. USDA helps agricultural producers manage the risks associated with agricultural production, improve good farming practices and become good stewards of the land, and recover economically and structurally when natural disaster strikes. CSREES contributes to the improvement and strengthening of this dynamic agricultural system through sponsored research into alternative methods to identify, assess, and manage risk, providing relevant education, and extending information and practices to improve production and market decision making through enhanced risk management.

CSREES Strategic Plan Key Long-Term Outcomes Table

Key Long-Term Outcome: Increased producers' knowledge of principles and techniques of risk management
Performance Measure: Benefits to farmers changing their risk management behavior per the net dollar cost of the risk management education program.
Performance Criteria (Objective 2.3): • Improve the economic choices farmers and ranchers make to access and allocate resources for the production of commodities, services and products (KA 601).

- Reduce hazards to the health, safety and biosecurity of people involved in the production, processing and distribution of agricultural and forest products (KA 723).

Actionable Strategies (Objective 2.3):

- Encourage agricultural producers in the use of good farming practices
- Continue to work aggressively to increase farm program participation rates among underserved populations and communities
- Continue risk education initiatives to help farmers and ranchers develop production, marketing and risk management skills
- Encourage producers to utilize computer-based record-keeping systems and other financial planning and risk-management tools
- Focus outreach efforts on minority producers beginning farmers, and women by or through:
    - expanding efforts to partner with other Federal, State and local agencies, and non-Governmental organizations that serve these targeted populations of agricultural producers; and
- Enhancing existing partnerships with land-grant universities and other educational organizations to identify
  Sponsor research, education and extension on the adequacy and efficacy of risk assessment, management and abatement tools and techniques
- Provide outreach, education and extension to help producers, processors and distributors adapt to changing foreign and domestic market structures and consumer preferences
- Sponsor academic and public outreach programs to deliver science-based information, education, training and continuing professional development to agricultural producers on risk management
- Support the recruitment, retention, training, graduation, and placement of the next generation of research scientists, educators, and practitioners in the food and agricultural sciences
- Sponsor development of knowledge to inform public and private decision makers on strategies for reducing risk in the management of natural resources

Performance Measures Progress Table

Risk Management
Performance Measure Description: Benefits of farmers changing their risk management behavior per the net dollar cost of the Risk Management Education program

Explanation of Measure: The measure indicates the Risk Management Education program's effectiveness in convincing farmers to adopt insurance and marketing practices designed to increase their profitability and reduce the variability of their income. Notes: (a) the actual values given below were calculated for extension efforts in Minnesota, Wisconsin, Iowa and North Dakota. (b) Dividing the financial benefits by the program dollar is designed to control for changed in funding. (c) The indicator may still be affected to some extent by weather and financial markets.

Baseline (FY 2004): 156	**Target**	**Actual**
Fiscal Year 2005	200	229
Fiscal Year 2006	220	251
Fiscal Year 2007	262	284
Fiscal Year 2008	274	*will be available in 2009*
Fiscal Year 2009	300	*will be available in 2010*
Fiscal Year 2010	322	*will be available in 2011*

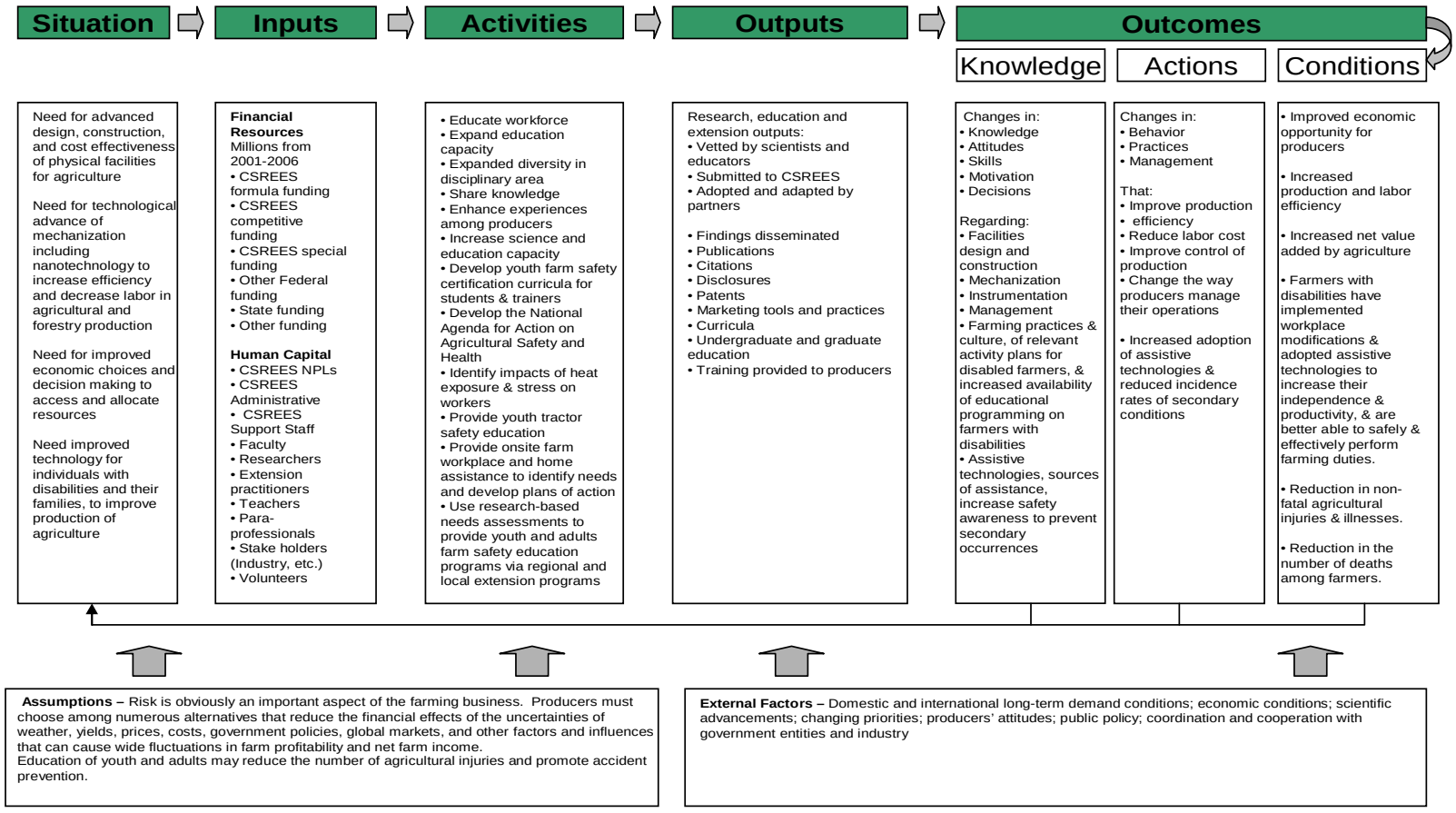
SARE
Performance Measure Description: The number of farmers and ranchers that gained an economic, environmental or quality-of-life benefit from a change in practice learned by participating in a SARE project

Explanation of Measure: This measure assesses the SARE program's progress toward helping farmers and ranchers improve their knowledge of sustainable agriculture production and marketing practices that ultimately leads to improved profitability, environmental stewardship and quality of life. Notes: (a) As part of the program's requirements, this measure is calculated from periodic program impact studies. Similar statistics, however, can be estimated every year.

Baseline (FY 2004): 8,100	**Target**	**Actual**
Fiscal Year 2005	8,800	8,870
Fiscal Year 2006	9,600	9,610
Fiscal Year 2007	10,200	10,240
Fiscal Year 2008	10,800	*will be available in 2009*
Fiscal Year 2009	11,300	*will be available in 2010*
Fiscal Year 2010	11,800	*will be available in 2011*
Fiscal Year 2011	12,300	*will be available in 2012*
Fiscal Year 2012	12,800	*will be available in 2013*

Portfolio Level Logic Model

Portfolio: Farm Management for Sustainability



Version 1.2

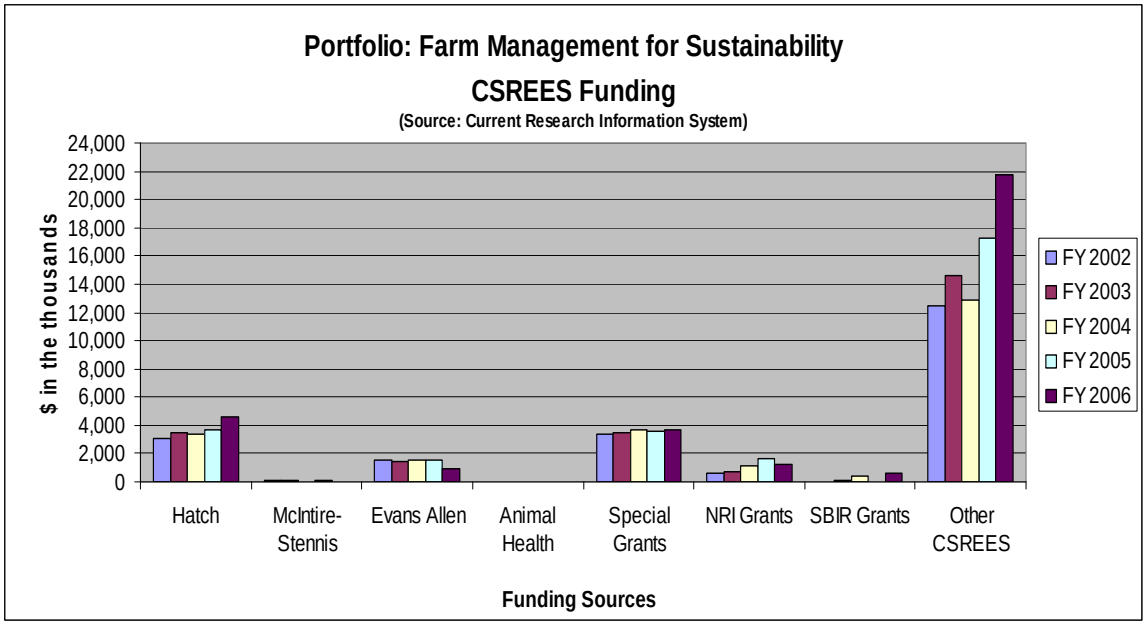
Portfolio Inputs

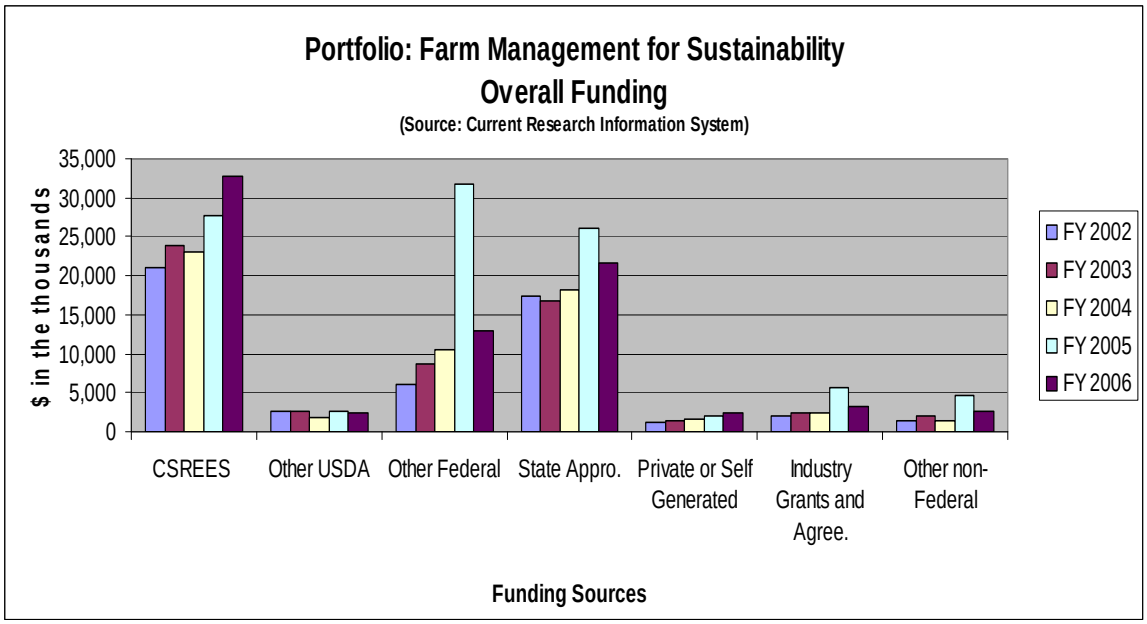
Portfolio Level Funding Table and Bar Chart

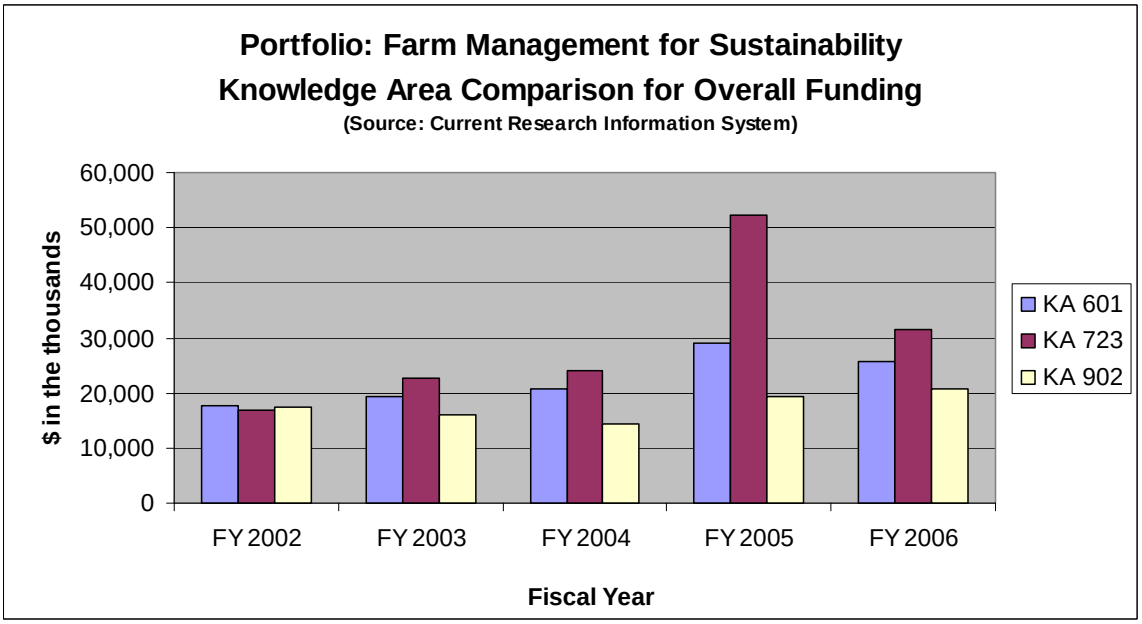
Unless otherwise noted, the source of information for the tables and charts in this section is the Current Research Information System (CRIS), which currently contains primarily research and education funding. Education funding is included starting with FY 2003. Extension funding by KA will not be available until FY 2007 funds are reported

Table 1: Portfolio: Farm Management for Sustainability Summary Funding Table for Primary Knowledge Areas for						
Fiscal Year 2002-2006						
	($ in the Thousands)					
Funding Sources	**FY 2002**	**FY 2003**	**FY 2004**	**FY 2005**	**FY 2006**	**Grand Total**
Total CSREES Funding	$21,113	$23,890	$22,967	$27,721	$32,721	$128,412
Total non-CSREES Funding	$30,872	$33,909	$36,090	$72,832	$45,409	$219,112
Total Funding	$51,985	$57,799	$59,057	$100,553	$78,130	$347,524
Percentage of CSREES Funding	41%	41%	39%	28%	42%	37%

Source: Current Research Information System







CSREES funding for activities relevant to the portfolio through Hatch activities increased slightly in FY 2006, while Other CSREES funding and SBIR funding for the same types of activities substantially increased. Overall Funding related to portfolio activities in the "Other Federal" category declined substantially in FY 2006 and somewhat in the "State Appropriations" category for FY 2006, while CSREES funding showed slight increase from previous years. All other funding categories both in terms of within and outside CSREES sources either remained at low levels or showed no significant increase or decline. Basic Hatch funding and sources from outside CSREES provide the basic funding structure for the activities of this portfolio.

Many of the activities involved in this portfolio are conducted within the agricultural economics, farm management and related professions working within the land grant and extension system and other partners. Farm safety and SARE activities captured within the portfolio involve a mix of management and other professionals.

The economics and management profession has been encouraged to participate more aggressively in CSREES and other competitively funded programs, especially in NRI arenas beyond those traditionally sought – Agribusiness Markets and Trade, Rural Development, and Agricultural Prosperity for Small and Medium-Sized Farms. These three sources, two of which are key programs in this portfolio, annually provide about $10 million; but an additional $50 million in annual funding that encourages economics-related proposals is included in programs like Managed Ecosystems, Water and Watersheds, Air Quality, Human Nutrition and Obesity, Food Safety and Epidemiology and Biology of Weedy and Invasive Species. While not exclusively farm management specific, these offerings reflect the highly integrated and multidisciplinary philosophy of the NRI, and, indeed, the Agency.

CSREES NPLs have successfully increased the awareness of the economics and farm management profession about opportunities available to them. Targeting department heads and young faculty, increased interest by the profession and led them to become more actively engaged in the competitive grants process.

Changes mandated by the new Farm Bill include development of research road maps for major areas of USDA research focus (including agricultural economics) and the submission of a single, integrated budget line item for research to Congress. Active participation of economics and economics-related National Program Leaders is required to ensure balanced integration of the physical, biological and social science portfolios to accomplish the USDA mission to provide leadership on food, agriculture, natural resources, and related issues based on sound public policy, the best available science, and efficient management.

Portfolio Results

Portfolio Outcomes:
Examples of representative outcomes from each of the primary KAs of the portfolio are highlighted below:

Annie's project - Over 4835 women have participated in various states' Annie's Project efforts, 30% have operations with gross revenue of less than $50k; 32% have operations with gross revenue of $50k - $150k; 14% have gross revenue of $150k - $300k; 19% have operations with gross revenue of $300k or above. Of those participating, 39% owned the acreages they farmed, representing $1.7 million in value; 42% operated cash-leased farms averaging $67,000 in value; 17% were crop shared and 2% were custom farmed lands.

252 classes of Annie's project were conducted in over 20 states from 2003-2008. In 2006-07, 63 classes were conducted; in 2007-08, 82 classes were conducted and from 2008-09, 131 classes were either underway or scheduled.
Within the five areas of risk (production, marketing, financial, legal and human resources) incorporated in Annie's Project delivery, and incorporating pre- and post-test risk assessment surveys in all classes in all states, all participants showed an increase in knowledge in each of the key five areas:

- production risk – an increase of 19.2%
- marketing risk – an increase of 34.6%
- financial risk – an increase of 32.3%
- legal risk – an increase of 33.3%
- human resources risk-an increase of 42.13%

AgrAbility - For one SRAP, the total cost of purchased assistive technology during the past year exceeded $3 million which was provided by the state vocational rehabilitation services for 126 farmers About 200 AgrAbility professionals received training which improved their skills to better serve farmers/ranchers with disabilities. About 100 occupational/physical therapists received training which significantly increased their knowledge and understanding of the needs of farmers/ranchers with disabilities and were able to better serve farmers/ranchers with disabilities. The National AgrAbility Web site (www.agrabilityproject.org) received 17,150 visits per month which is an increase over the preceding year. This site has many resources valuable to people working with farmers/ranchers who have disabilities. The documents are downloaded without costs. In many cases the documents are prepared in formats printable as handouts for use by SRAP staff and others.

Section 2501: The 2501 program funded projects designed to address the unique challenges faced by farmers and/or ranchers who are socially disadvantaged farmers and ranchers. Georgia's Federation of Southern Cooperatives' 2501 project continues to build a Regional Marketing System that link SDP cooperatives in Georgia, Alabama, Mississippi and South Carolina. This increases the producers' opportunities in both commercial and direct marketing:

- 20% increase in acreage devoted to alternative crops including seedless watermelon and a variety of vegetables giving producers a broader market.
- 38% increase in producers participating in sales through farmers' markets, retail grocers, farmer-owned processing operations and institutional buyers.
- Moved production of seedless watermelon (desired in high-end market), farmer prices once .05 per pound, went up to $.30 per pound.
- Average income of farmers participating in the watermelon project has increased by 5%.

SARE - Surveys of farmers, extension educators, and researchers help quantify that SARE is achieving results on the ground. A 2005 survey of farmers and ranchers who received western SARE grants reveals that grant recipient experiences were overwhelmingly positive:

- 64 percent said their SARE project helped them achieve higher sales
- 41 percent reported increased net income
- 79 percent experienced improved soil quality
- 69 percent saw increased wildlife habitat

Portfolio Leadership and Management:
This portfolio has undergone considerable transformation over time and most recently. In the distant past it benefitted from the services of multiple NPLs (including those in related Markets and Trade areas such as livestock marketing, grain marketing, agricultural policy, and trade). With attrition and retirements, the CSREES human capital has changed just as the focus from commodities and products has expanded toward concepts of decision making as constrained by economic, policy and regulatory and legal realities and achieving greater stability, sustainability and safety in farming and ranching operations.

The Land Grant and Extension system still has an appreciable number of professionals engaged in farm management activities; these professionals are predominated by those with agricultural economics training. In sustainable agriculture, higher education and research is becoming more innovative and responsive to the growing concerns regarding long-term environmental health of our working lands. New higher education programs are being launched to meet the needs and desires of a new generation of students to engage in a systems and sustainability approach to their careers.

NPLs throughout CSREES lead in a number of ways within the system:

- NPLs develop and participate in a wide variety of professional opportunities for partners to dialogue about current and emerging issues related to the portfolio in a variety of settings.
- Since the inception of the NPL Liaison Program, NPLs are in continuous contact with their assigned state land-grant universities, dialoguing with administrators, faculty and staff to assess climate and gauge stakeholder challenges and opportunities.
- At the programmatic level, NPLs continuously interact with partnership colleagues, external partners, professional organizations, and each other to assess and integrate stakeholder input into their programs.

CSREES also recognizes its role as a conduit of current research information. CSREES works closely with other agencies, organizations and land-grant universities and provides a mechanism to distribute information to stakeholders and partners. Outlets include multiple CSREES listservs, dedicated web pages, newsletters, teleconferences, trainings and conferences, all facilitated, monitored and moderated by NPLs managing them.

Programmatic or Management Shortcomings:
The major shortcoming of this portfolio is limited human capital for enhanced leadership. However, current NPLs are highly active within their professions. The hiring of a new NPL for Farm Financial Risk Management (an agricultural lawyer) has considerably broadened the scope and scale of our leadership in management, marketing and policy.

The inclusion of legal aspects of production, entrepreneurship, and marketing is a substantial benefit to the ECS unit and to the support of the Agency and USDA missions.

NPLs have worked hard to maintain considerable visibility within their professions. Evidence of the latter is apparent in requested presentations and symposiums, service to professional organizations, regional associations, and to USDA. Portfolio management has not been verified as a problem, as there is no evidence of any policy, procedural or programmatic deficiencies in the competitively funded, formula based, or special programs.

Portfolio leaders engaged in this newly reconfigured portfolio will continue to meet, exchange ideas and continue enhancing the interconnections within the portfolio. The portfolio team was finalized just months before reporting for 2008 and as such the team has had limited opportunities to engage in strategic planning across the portfolio funded activities. It is anticipated these coordination activities will improve and increase as the team coalesces. A strategic planning session will be conducted in the near future.

Key Future Activities and Changes in Direction:
Passage of the 2008 Farm bill influences the scope of farm management and related policies, subject to the appropriation of funds by Congress and the outcome of the CSREES transition to the National Institute for Food and Agriculture. Within the 2008 Farm Bill funding for sustainable agriculture programs continues; special emphasis for risk management education has emerged; many new provisions relating to beginning farmers and ranchers, socially and geographically disadvantaged farmers and ranchers and others relevant to Key Programs of the portfolio have emerged. Financial security for rural farm families is expected to continue as a national focus.

Additional focus areas can be identified:
- Policy impacts of the 2008 Farm Bill
- Continued funding of the risk management education program with special emphasis on five different population groups
- Continued funding for the Sustainable Agriculture Research and Education program
- Acknowledgment of the changes in the specialty crop sector
- Market based environmental services
- Increased work in experimental and behavioral economics
- Creation of a new benchmarking and focus activities for a national center for farm financial management (appropriations yet to be determined)

What are Others Doing?
Recognizing that improving viability and sustainability of farming and ranching operations and the families involved in those operations takes a major coordination of resources, federal and national agencies and organizations all seeking to strategically collaborate to maximize limited resources and reduce duplicative efforts. The following are representative of what others are doing in the areas of interest within the portfolio.

AgrAbility

The purpose of Association of Programs for Rural Independent Living (APRIL) is to provide leadership and resources on rural independent living. As a national membership organization, APRIL is dedicated to advancing the rights and responsibilities of people with disabilities in rural America by serving as a center of resources and by leading systems change. http://www.april-rural.org/

The Breaking New Ground Resource Center of the Purdue University Department of Agricultural & Biological Engineering has become internationally recognized as the primary source for information and resources on rehabilitation technology for persons working in agriculture.
http://cobweb.ecn.purdue.edu/~agenhtml/ABE/Extension/BNG/Resource%20Center/resourcecenter.html

The Research and Training Center on Disability in Rural Communities (RTC:Rural) was established in 1988 as part of the Rural Institute at the University of Montana. RTC:Rural is funded by the National Institute on Rehabilitation Research to improve the ability of persons with disabilities to live independently in rural America. To do this RCT:Rural

- Organizes and implements a comprehensive, integrated program of research and training.
- Produces cost-effective, replicable "social technologies" for solving rural community problems.
- Develops rural community infrastructure to enhance the opportunities for people with disabilities to achieve their own goals by leading healthy and independent lives.
- Integrates disability issues into the agenda of agencies, organizations, and programs that address broad issues.

Risk Management & Farm Financial Management

The Risk Management Agency (RMA) of USDA is a full and active partner to those involved in this portfolio work. RMA is the central agency working to strengthen and establish the nation's crop insurance system and it provides funding in five grant opportunities to also bring resources to the risk education arena. RMA has provided joint or additional funding for several activities reported on within the RME and SARE areas of this portfolio.

The Farm Service Agency (FSA) of USDA also requires the many borrowers in direct or operating loans as well as guaranteed loans, engage in some degree of financial education training to improve performance in servicing. Many professionals within the CSREES and partners of the system serve as educators for those programs and the Annie's Project

reported on in this portfolio is discussing ways in which Annie's Project can qualify as approved financial education training for women borrowers.

The Center for Farm Financial Management is located on the University of Minnesota campus and serves as the Digital Center for the Risk Management Education program. However, it interfaces with a large number of stakeholder organizations at the public, private and international level in design and execution of important financial management interactive tools, benchmarking studies and other key risk and financial management decision support mechanisms. Through the CFFM, CSREES is able to maintain close connections to the lending communities with key agricultural lending responsibilities.

The Farm Credit System is involved in a comprehensive, national Beginning Farmer and Rancher training program and has a strong portfolio of loans for new and beginning farmers and ranchers. The Farm Service Agency likewise maintains a large loan portfolio providing startup direct and guaranteed operating and ownership loans for beginning farmers and ranchers. A key component of their borrower relationship is the requirement for borrowing financial training; many professionals linked to the CSREES and its partners are critical instructors for those programs.

SARE

The Southern Sustainable Agriculture Working Group remains a vibrant and growing organization that works alongside the SARE program in improving knowledge among those engaged in organic and/or sustainable production methods. SSAWG sponsors a yearly conference in Kentucky and draws consistently in excess of 1000 producers, educators and community officials to learn more and network among others in the South.

Outreach

The USDA Natural Resources Conservation Service (NRCS) is actively engaged in outreach activities among producers throughout the country, particularly on issues related to conservation and protection of working lands. The NRCS is working among the women in agriculture community by sponsoring a program called "Women, Land and Legacy" and in some states these NRCS-based activities are working with other annual women in agriculture conference events and Annie's Project workshops in creating a web of support for women assuming primary responsibility for the nation's farms, ranches and/or working lands.

Small Farms

The USDA Small Farm Coordinators group works throughout USDA, from the Secretary's offices to the Forest Service and includes representation from all agencies of USDA. The group meets monthly to discuss opportunities and challenges as well as emerging or existing funding of activities, grants or other programs relating to small farms. The group is an active partner in coordinating and hosting the annual USDA Partners meeting and works to raise awareness of the unique challenges faced by the country's' smallest agricultural operations.

Section II: Primary Knowledge Areas

Introduction
The newly configured portfolio brings together primary and secondary KAs and key programs that support sustainable farm practices to strengthen farms and farm families. These KAs are listed and discussed below

KA 601: Economics of Agricultural Production and Farm Management

Introductions:

Knowledge Area 601 includes two components: Risk Management Education (RME) and Farm Management Program (FM) and focuses on the economic choices farmers and ranchers make to access and allocate resources for the production of commodities, services, and products. These resources help farmers and ranchers minimize production and other forms of risk thereby assisting them to optimizing farm income. CSREES' role involves program operational responsibilities, administrative oversight of projects funded by various sources of funds, and the interaction with various stakeholder groups involved and interested in this problem area. Economics of Agricultural Production and Farm Management cuts across two major programs within CSREES, namely the Risk Management Education (RME) Program and the Farm Management Program.

The RME Program is funded directly by the Congress ($5 million annually); with additional work being conducted on various projects funded through Hatch, Smith-Lever, Special Research Grants and Federally Administered Grants projects. Approximately .35FTE of a National Program Leader is dedicated to the RME Program.

The Farm Management Program is not directly funded, per se. However, this program does have a dedicated National Program Leader (NPL) with approximately .20 FTF of his time allocated to this and related issues. The program is funded primarily at the state and regional level via Hatch funding, Smith-Lever funding, Special Research grants, and Federally Administered grants.

RME Program History:
The purpose of the RME program is to develop educational and training program specific to five areas of risk management. Funding is authorized by the Agriculture Risk Protection Act (ARPA) of 2000) (P.L. 106-224, June 20, 2000). Legislation directed CCC to allocate $5 million specifically to CSREES to begin a Risk Management Education competitive grants program. The program began in 2001. The overall program goal: to enhance the profitability of farmers and ranchers by a decentralized program delivered through four risk management education centers and a digital center with fair, equitable distribution of funds and efficient management of funds. Beginning in FY 2004, all funds ($4.8) were distributed to four regional centers and digital center on a competitive basis.

Of 2049 projects funded in KA 601, 1779 were funded by CSREES (2004). 391 contained "Risk Management" either in their title or in key words. CSREES funded approximately 286 of the 391 projects with risk management and 97 of these incorporated economics as a major emphasis. In FY 2001, only $3M was made available; in FY 2002, 03, 04 $5.0M was made available with $4.8M distributed to the states. The same amounts ($4.8) were distributed in 2005, 2006 and 2007. Total state and federal funds captured in CRIS for the 601 KA ranged from $14.3 million in 1998 to $22.8 million in 2002.

During FY 2001 and 2002, 81 projects were funded at the regional level. Each regional center develops a regional newsletter and all coordinate through outcome-based funding approaches. An online results verification system is fully operational and the Digital Center also archives and provides public access to all program-developed materials. By 2007, 666 projects had been funded at the regional level.

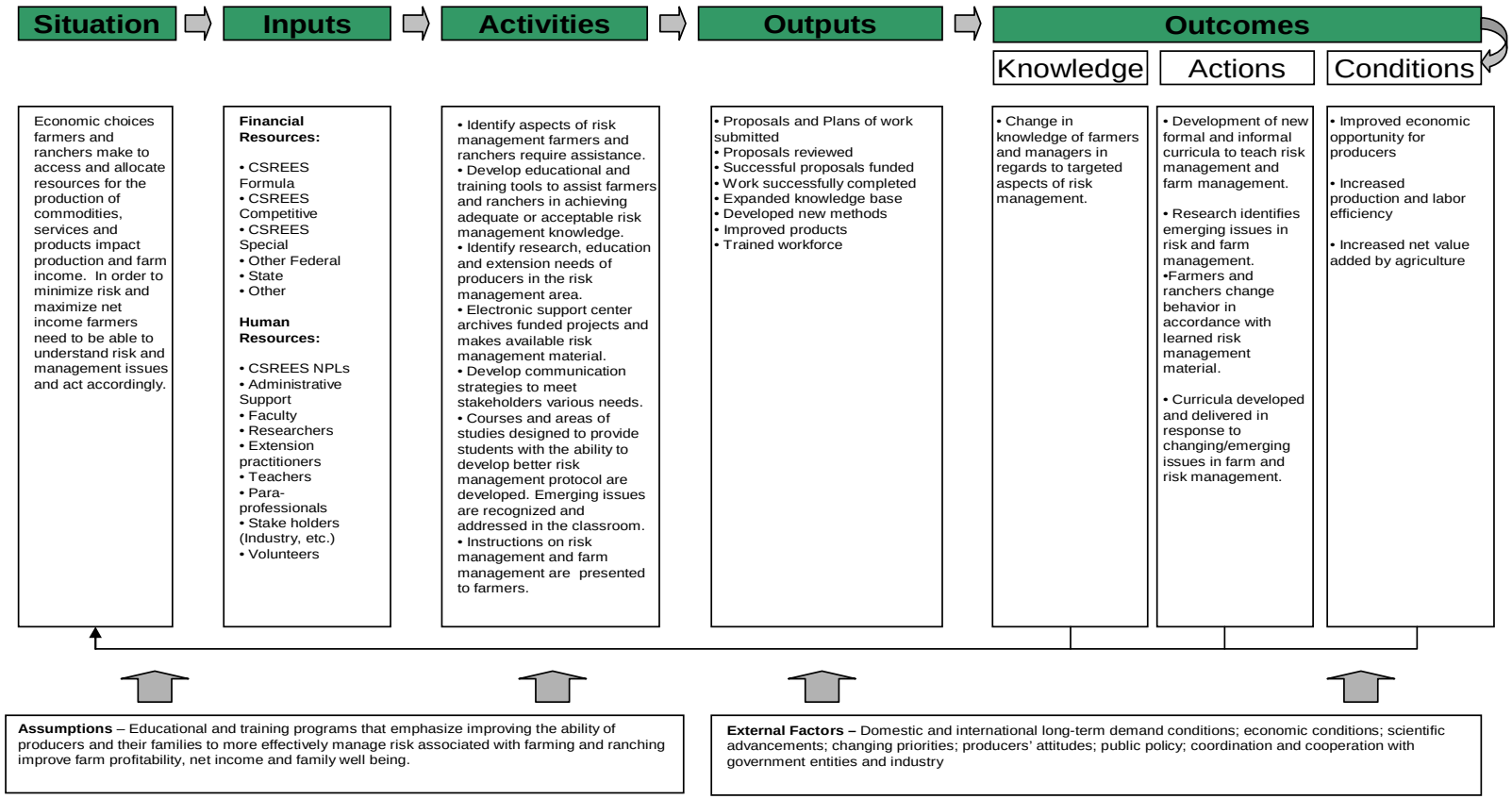
The Farm Management Program:
The Farm Management Program is concerned with issues such as: managing land, labor and capital so as to obtain the highest possible return consistent with the farm and/or farm family goals and values. The structure of agriculture has changed significantly over the past two decades: industrialization or concentration in the livestock sector; international trade and globalization; new emphasis on homeland security; financial institutions becoming more concentrated with impacts on credit costs and availability.

There is no separately funded "farm management" program at USDA, per se. Rather, projects exist throughout the system keyed to KA relevant to farm management, specifically 601 and 602. 601 KA - $14.3 million spent in 1998; $15 million in 1999; $18.4 million in 2000; $22.5 million in 2001; $22.8 million in 2002.
Inputs from CRIS for farm management: $3.5 million spent in 1998; $3.4 million in 1999; $5.6 million in 2000; $8.2 million in 2001; $5.5 million in 2002.

Outputs are numerous and broad – publications in peer-reviewed journals; university publications; popular publications; popular press, books, radio and television shows. Development of financial, marketing, production, resource management, business and strategic and tactical plans for farm managers. Development of new formal and informal farm management curricula and preparation of technical information and advice specific to approved commodities under the TAA program have also been developed.

Logic Model:

KA 601: Economics of Agricultural Production and Farm Management



Version 1.2

KA 601 Key Activity:

- *Women and Working Lands:* Recent USDA Forest Service, Forest Inventory and Analysis, National Woodland Owner Survey, 2004 Preliminary Results (7.27.2005) (Butler & Leatherbery) cite family forests in the US as being in the range of 261,639,000 acres in 10.7 million ownerships, representing 42% of all forests in the U.S. Future plans for those forests reflect intention to transfer to heirs (43.2 Million acres or 16.5%) and 913,000 ownerships. Age of these forest landowners fall roughly in the same categories as agricultural landowners: 62.8% are in the 55-65+ age category; 39.2% are over 65; representing 49% of all ownerships. Of landowners, female owners account for 30.2 Million of all acres or 11.5% with 1.7 million owners or 15% of all forest landownerships.

- *Iowa: Farm Transition and Estate Planning: Build your Exit Strategy*
  A study conducted by Iowa State University faculty found more than 50% of Iowa farmers had no estate plan and 70% had not named a farm business successor (Duffy, Baker, and Lamberti, 2000). A Successful Farming magazine survey found that 30% of farmers nationwide had not discussed transfer of their farm business with their family (Tevis, 2003).

  Post-meeting evaluative data from participants attending a 2005-06 Farm Transition Estate Planning program was conducted in 2007. Workshops showed that 88.9% of those attending did not have a farm business transfer plan and 57.8% did not have an up-to-date estate plan.

  Of the total 524 Minnesota farm family members, representing 301 farm business units, from 191 communities, and ranging in age from 22-89 years of age and 33.1% female and 66.9% males audience, 49.3% of the audiences were over the age of 55. Participants were surveyed during 2007 over six months after the initial project participation began. Of respondents, 59.4% had started to develop/update their farm business transfer plan with 57.1% being 25% complete; 17.9% at 50% complete; 12.5% at 75% complete and 12.5% at 100% completion. Of those responding, 57.3% had started to develop/update their personal estate plan with 54.5% being 25% complete; 20% being 50% complete; 18.2% being 75% complete and 7.3% being 100% complete.

  The average balance sheet for a Minnesota family farm business owner lists total farm assets of $1,125,335 including owned land, livestock, equipment and machinery and total non-farm assets of $177,156 (FINBIN 2006). Total cost for delivering the program was $25,879. Utilizing the FINBIN balance sheet value for total farm assets of $1.125 million multiplied by the 178 farm units that had started or completed their farm transition plan, the total financial impact is $200.3 million or $382,251.90 per program participant. Focusing only on those 37 farm units that stated they had completed their farm transition plan multiplied by the FINBIN farm balance sheet asset value of $1.125 million, the total financial impact is $41.6 million or $79,460.67 per program participant.

Utilizing FINBIN balance sheet value for non-farm (personal) assets of $177,156 multiplied by the 172 farm units that had started or completed their farm personal estate plan, the total financial impact is $20.2 million or $38,455.78 per participant. Focusing only on those 22 farm units that had completed their personal estate plan multiplied by the FINBIN non-farm balance sheet asset value of $177,156, the total financial impact is $2.6 million or $4,918.76 per participant.

Total financial impact of the program, combining the farm transition and estate planning asset portions from the 178 survey respondents, is $220.5 million or $420,726.07 per the 524 program participants.

- *Annie's Project Goes Nationwide: Women in Agriculture*
  According to the US Census of Agriculture, the number of women farmers and ranchers rose 13.36% from 209 to 237k from 1997 – 2002, with the acres they controlled rising from 50M to 59M in the same period, a 16.5% increase.

  Annie's Project: Education for Farm Women is an educational program launched by the Risk Management Education Centers. It allows a safe harbor, connection between women in agriculture, discovery and guided intelligence; participants cover all five areas of risk management – financial, production, marketing, legal and human resources.

  Women participating in Annie's Project have a strong need for information related to: tax, insurance, input decisions, marketing decisions, knowledge of program deadlines; government program reporting requirements; landowner communications; loan preparation documents; business planning; understanding cash flow; understanding income statements; understanding profitability and benchmarking for the operation; balance sheets; transition and retirement issues; legal issues; estate planning and settlement of estate issues. The program is administered through a multi-week platform. It includes guided classroom exercise incorporating local experts such as tax preparers, loan officers, attorneys, insurance providers, accountants, and financial planners and representative of relevant government agencies.

  Over 4835 women who have participated in various states' Annie's Project efforts. 30% have operations with gross revenue of less than $50k; 32% have operations with gross revenue of $50k - $150k; 14% have gross revenue of $150k - $300k; 19% have operations with gross revenue of $300k or above. Of those participating, 39% owned the acreages they farmed, representing $1.7 million in value; 42% operated cash-leased farms averaging $67,000 in value; 17% were crop shared and 2% were custom farmed lands. Of the participants, 80% were married; 3% were single; 3% were divorced and 14% were widowed.

Outcomes: 252 classes of Annie's project were conducted in over 20 states from 2003-2008. In 2006-07, 63 classes were conducted; in 2007-08, 82 classes were conducted and from 2008-09, 131 classes were either underway or scheduled. Within the five areas of risk (production, marketing, financial, legal and human resources) incorporated in Annie's Project delivery, and incorporating pre- and post-test risk assessment surveys in all classes in all states, all participants showed an increase in knowledge in each of the key five areas of risk: production risk – an increase of 19.2% in knowledge; marketing risk – an increase of 34.6% in knowledge; financial risk – an increase of 32.3% in knowledge; legal risk – an increase of 33.3% in knowledge and human resources risk – an increase of 42.31% in knowledge. In one state – Illinois – those having a marketing plan before Annie's Project were 10%; those having one in place before their full Annie's Project classes ended was 22.8%. These same increases held across the following areas: balance sheets, income statements, next generation plan, life insurance, wills, and comfort with debt level. In other words, those participating in Annie's Project all experienced increases in the numbers of tools in place post-educational sessions in each of the key indicator areas for business success.

KA 601 Key Outputs

To, date 666 projects have been funded at the regional level through the RME program targeting socially disadvantaged farmers and ranchers, underserved farmers and ranchers, and women in agriculture. Workshops and conferences that addressed risk management issues were also funded in each region. Each of the four centers received funds for basic administration services and for use in a regional competitive program for sub-grants to perform risk management education projects.

The Risk Management education centers develop a regional newsletter. The four center directors meet to develop annual progress reports for the entire program. The regional RME center directors decided during the early years of the program to adopt an outcomes oriented approach to funding, following the model developed by Harold S. Williams, Arthur Y. Webb and William J. Phillips, published by the Rensselaerville Institute. All proposals are submitted through an online process and all project materials are required to be archived within the National Ag Risk Library. The online process and archives supported by the Digital Center works alongside the four Regional RME Centers.

The verification system, as it is known, is complete and is fully operational, with recurrent annual review and update. The public has access to annual progress reports, final reports, and can gain a better understanding of actual accomplishments. The progress reports are formatted such that the project director must report progress against the expected outcomes initially identified in the funded proposal. Part of this also entails discussions with the appropriate center director if expected progress against the outcomes is not being satisfactorily achieved. This would then lead into a negotiation process by which adjustments to the project would be made to hopefully achieve most of the expected outcomes.

Each funded project produces a final report available to the public via the Digital Center and the regional centers. These projects provide multi-faceted risk management educational curricula, new risk management education tools, new risk management delivery methods, with the ultimate goal of enhancing the risk management knowledge lever of producers and their families and thereby positively impacting net farm income and the long-term viability of the agricultural enterprise.

KA 601 Key Outcomes

In Texas, producers and commodity group representatives met to evaluate how they might improve the "Master Marketer" series of risk management training sessions. The group identified the need for an advanced topic series (ATS), and prioritized a list of 10 topics on which they need additional risk management knowledge. More than 250 producers are expected to participate in the 10 2-day short courses on topics ranging from advanced hedging futures and options strategies, to helping producers be more disciplined in executing their marketing plans. Producers will also be provided the opportunity to develop their own unique commodity-specific plan in future short courses

The dairy sector has been evolving and moving toward market-oriented sector in Pennsylvania. Two projects were funded. 130 dairy producers learned how to better manage the financial risks of their business by implementing Best management Practices in Business & Information Management. The other program is designed to assist dairy farmers in improving their forward contracting and hedging abilities to enable them to protect their milk revenue and farm equity.

Eighty-seven producers, agriculturalists and educators in Montana and northern Wyoming, learned a number of things, among them are the importance of choosing insurable units wisely, the details of how to calculate approved production histories (necessary for many insurance programs), information on specific insurance products, the process for requesting actuarial changes, and details on the Non-Insured Crop Disaster Program.

From a human risk mitigation perspective, more than 70 farmers, managers and farm labor supervisors representing a number of agricultural operations in Southern California, took part in a series of interactive labor management training seminars using Spanish. Over 90 percent of the work force and their supervisors in the four counties (Orange, Riverside, Imperial, and San Diego) working for approximately 10,000 agricultural enterprises are Hispanic. As a result of the success of this program, the San Diego Farm Bureau, USDA's NRCE and FSA in Riverside County, have stepped forward to sponsor similar workshops in the future.

A number of partners representing extension at the universities of New Hampshire, Vermont and Main together with the Connecticut department of Agriculture, the New England Small Farm Institute , Maine Farm Link, Land Link Vermont, and the University of Vermont's Center for Sustainable Agriculture came together to develop workshops on the intergeneration transfer of the farm. The workshops are designed for producers throughout the region dealing with estate tax provision, legal methods to protect assets

from taxation, individual goals related to farm estates, tools to use to transfer farm assets, and business structure that fit the farm family's estate planning goals. Each workshop will be tailored to the geographical area in which it is being presented to ensure relevance and immediate usefulness.

In the North Central region, 23 workshops on "Pilot Livestock Revenue Insurance Producer Education" were held across the region with over 600 pork producers attending.

The projects noted above are just a sample of what has been and is being funded to assist producers in becoming more knowledgeable in managing the multitude of risks associated with the agricultural enterprise. Immediate and intermediate changes are taking place, and new opportunities are being identified.

For example, the Pennsylvania Department of Agriculture with Penn State University developed a new insurance idea that emphasized whole-farm insurance coverage. Many farms, particularly in the Northeast and South have a multitude of crops, some of which have insurance programs, but many more that do not. An insurance product was developed and piloted in Pennsylvania in 2001. In 2002 it was expanded to the entire Northeast, and it continues to expand throughout the country. The Risk Management Education centers played a critical role in the development and application of such knowledge that benefited those producers.

KA 723: Hazards to Human Health and Safety

Introduction:

Knowledge Area 723 involves efforts to reduce hazards to the health, safety, and biosecurity of people involved in the production and distribution of agricultural and forest products. This KA also covers safety aspects of agricultural injuries and illnesses and methods for effective intervention. The emphasis is on immediate hazards to humans. A NY study showed that 7 out of 10 farms failed when the primary operator was fatally injured. This KA includes AgrAbility.

The AgrAbility Project is a national program that works to assist agricultural and agribusiness workers who have physical and mental disabilities to adapt their homes and farms in order to allow them to continue to work in agriculture.

The goal of AgrAbility is to provide assistance and resources to farmers with disabilities that allow them to continue farming. AgrAbility provides individualized services, both on and off the farm, to help create a comprehensive, individualized plan to allow the disabled farmer to continue farming. AgrAbility involves not only the farmer, but the family, community, agricultural professionals, medical professions and farm implement manufacturers.

Safety is still a key area of concern on the farm or ranch as agriculture remains among the nation's most dangerous professions or activities.

During 2006-07, AgrAbility programs directly served 1293 farmers/ranchers with worksite visits which allowed many of them to continue working in their chosen profession. Without this program, a majority of these farmers/ranchers would have increased risk of secondary injuries if they continued in their profession or would seek employment outside of their profession.

Based on reports developed from these worksite visits, many of these farmers/ranchers received financial support from state vocational rehabilitation services and other sources to purchase the SRAP staff recommended assistive technology.

For one SRAP, the total cost of purchased assistive technology during the past year exceeded $3 million which was provided by the state vocational rehabilitation services for 126 farmers About 200 AgrAbility professionals received training which improved their skills to better serve farmers/ranchers with disabilities. About 100 occupational/physical therapists received training which significantly increased their knowledge and understanding of the needs of farmers/ranchers with disabilities and were able to better serve farmers/ranchers with disabilities. The National AgrAbility Web site (www.agrabilityproject.org) received 17,150 visits per month which is an increase over the preceding year. This site has many resources valuable to people working with farmers/ranchers who have disabilities. The documents are downloaded without costs. In many cases the documents are prepared in formats printable as handouts for use by SRAP staff and others.

Injuries and deaths of minors in agriculture
The fiscal year 2008 Agricultural Appropriations House Report 110 -258 included in the Office of the Secretary of Agriculture a Congressional Directive regarding injuries and fatalities to minors: *The committee directs the Secretary of USDA, in collaboration with the Secretary of Labor, to develop a plan to address injuries and deaths of minors in agriculture.*

United States Department of Agriculture (USDA) and United States Department of Labor (USDOL) continue to collaborate on training and certification programs addressing farm machinery and tractors deemed to be the most prevalent causes of farm-related youth fatalities.

New training curriculum has been developed and implemented as a result of these efforts. Significant changes in agricultural production and in the agricultural workforce, as well as the high number of incidents of injuries and deaths associated with agriculture employment, have resulted in USDA and USDOL collaboration to revitalize the certification process, and to develop appropriate training, and review the restrictions concerning youth employment in hazardous agricultural jobs. Federal funds were appropriated to USDA beginning in fiscal year 2001 to develop new curriculum and instructor training for youth farm safety education and certification. A joint plan between USDA and USDOL has been prepared and is in the final stages of OMB clearance.

Multi-state activities
The NCERA 197 committee's goal are to develop and support action groups for each of the 12 agricultural safety and health priority areas identified in the National Land Grant Research and Extension Agenda for Agricultural Safety and Health, develop assessment tools to measure impact, and to create a supportive environment for exchange of ideas, partnering, and involvement of stakeholders. Each of the 12 priority areas is broad-based and multi-faceted.

The decision was made to focus on one area and develop an action plan model that could then be used for the other priorities. The end product of this action plan model would be a White Paper on the topic to be shared and distributed to researchers and interested parties. The priority area selected was Operating Agricultural Equipment on Public Roads.

The safe operation of agricultural equipment on public roads is included in both new curriculums designed to meet training and certification requirements for the U.S. Department of Labor's Agricultural Hazardous Occupations Orders (Ag HOs). These curriculums are for the National Safety Tractor and Machinery Operation Program and the Gearing Up 4 Safety program. Both curriculums are appropriate for a much broader audience than the 14-15 year olds required by law to receive the training to be hired to operate tractors over 20 horsepower and powered machinery on non-family owned farms.

Purdue University produced a safety education CD titled "Sharing the Road" that addresses many of the specific concerns the committee for operating agricultural

equipment on public roads. The CD has been distributed to committee members and will be made available to all NIFS Workshop participants.

Milestones:
The National Institute for Farm Safety accepted our proposal to devote the professional development section of their 2008 annual conference to Operating Agricultural Equipment on Public Roads. This is the first time an outside group has been given the opportunity to manage the professional development section of the NIFS annual conference.

The North Central Regional Association considers that NCERA 197 is a very effective NCERA committee, exhibiting good interaction and excellent ties to the DHHS and the national safety programs for agriculture and other areas. During their midterm review, they approved continuation of the NCERA 197 committee. The National Institute for Occupational Safety and Health's (NIOSH) AgFF Sector Council was tasked to identify the most salient safety and health needs and develop a strategic plan to address them. The AgFF Sector Council seeks to identify important research questions, recognize priority safety and health concerns, understand effective intervention strategies, and disseminate information on strategies to improve safety and health workplace practice. The National Land Grant Research and Extension Agenda for Agricultural Safety and Health served as a key resource document in development of the AgFF Sector Council's strategic plan.

Youth Farm Safety Education and Certification

Situation: The Youth Farm Safety Education and Certification Extension (YFSEC) Competitive Grant Program solicited for the FY 2008 prioritized applications that will establish a youth farm safety extension education program for underserved and/or minority youth.

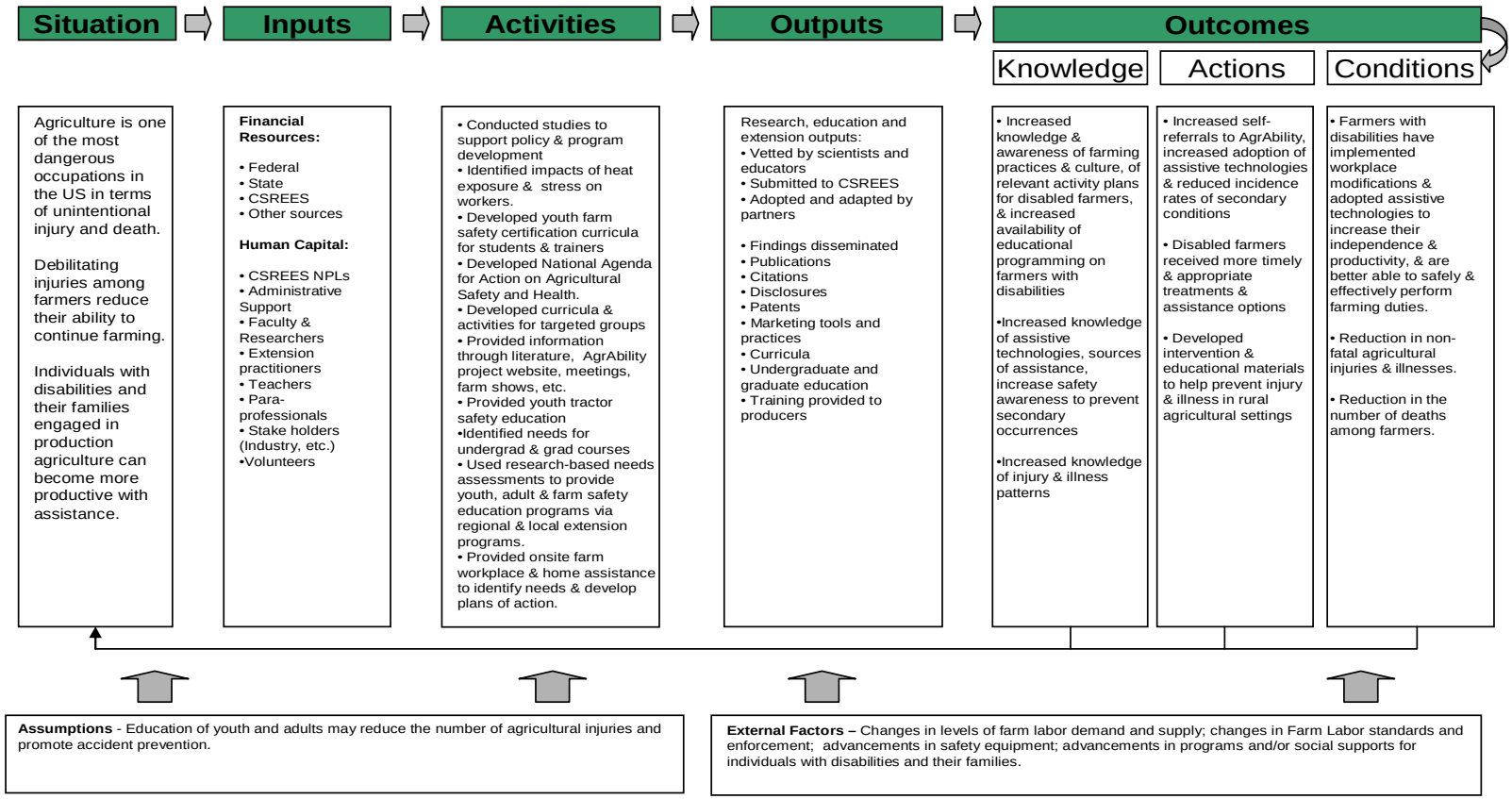
Inputs: Two awards (100% of awards) were made under this priority:

- "A Pilot Program to Bring Farm Safety Training to Hispanic Youth" The Pennsylvania State University.
- "Youth Farm Safety" West Virginia University. This project seeks to reduce injuries to underserved Appalachian youth through an innovative research driven program of community and family based health promotion.

<u>Outputs and Outcomes will be reported in later years.</u>

Logic Model:

KA 723: Hazards to Human Health and Safety



Version 1.2

KA 902: Sustainable Agriculture

Introduction:

Sustainable agriculture first came to general awareness in the early 1980s because of concerns with rising costs and falling prices, impacts of agricultural chemicals on the environment and the effects of agricultural industrialization on farm families and rural communities.

Congressional directives: Congress defines sustainable agriculture as "…an integrated system of plant and animal production practices having a site-specific application that will, over the long-term: satisfy human food and fiber needs; enhance environmental quality and the natural resource base upon which the agriculture economy depends; make the most efficient use of nonrenewable resources and on-farm resources and integrate, where appropriate, natural biological cycles and controls; sustain the economic viability of farm operations; and enhance the quality of life for farmers and society as a whole." SARE has been funded since 1988 in order to "…encourage research and education designed to increase knowledge and extend information about Sustainable Agricultural production systems that:

- maintain and enhance the quality and productivity of the soil;
- conserve soil, water, energy, natural resources, and fish and wildlife habitat;
- maintain and enhance the quality of surface and ground water;
- protect the health and safety of persons involved in the food and farm/ranch system;
- promote the well being of animals;
- increase employment opportunities in agriculture."

SARE's Research and Education (Chapter 1) funding supports projects that "…should be conducted to obtain data, develop conclusions, demonstrate technologies and conduct educational programs that promote agricultural production systems that reduce, to the extent feasible and practicable, the use of chemical pesticides, fertilizer, and toxic natural materials, improve farm management to enhance agricultural productivity, profitability, and competitiveness, and promote crop, livestock, and enterprise diversification."

SARE's Professional Development Program (Chapter 3) is designed to "…develop specific training and education activities to facilitate adoption of sustainable agriculture production systems and practices, as researched and developed under SARE, water quality, and other appropriate research programs at the USDA."

SARE's priorities are to facilitate and increase the scientific investigation and education of sustainable agricultural production systems.

SARE focuses on the following objectives:

- Promote good stewardship of the nation's natural resources by providing site specific and profitable sustainable farming and ranching methods that strengthen agricultural competitiveness; satisfy human food and fiber needs; maintain and

enhance the quality and productivity of the soil; conserve soil, water, energy, natural resources, and fish and wildlife habitat; protect endangered species; and maintain and improve the quality of surface and groundwater;

- Protect the health and safety of persons involved in the food/farm system;

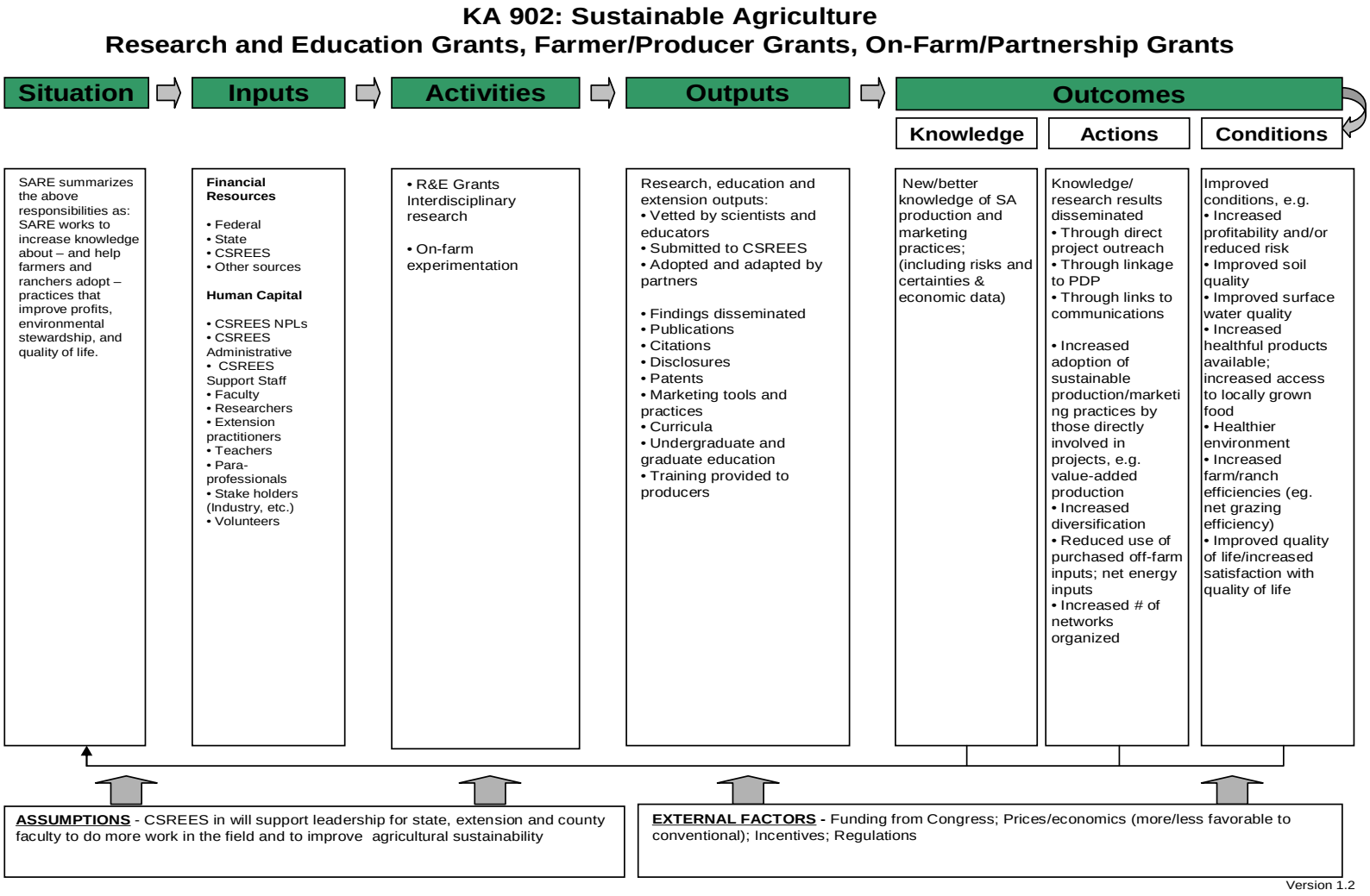
- Enhance the quality of life for farmers/ranchers and society as a whole, in part by increasing income and employment – especially profitable self-employment opportunities in agriculture and rural communities. Specifically, a major goal is to strengthen the family farm system of agriculture, a system characterized by small-and moderate-sized farms that are principally owner operated;

- Promote crops, livestock, and enterprise diversification and the well-being of animals and;

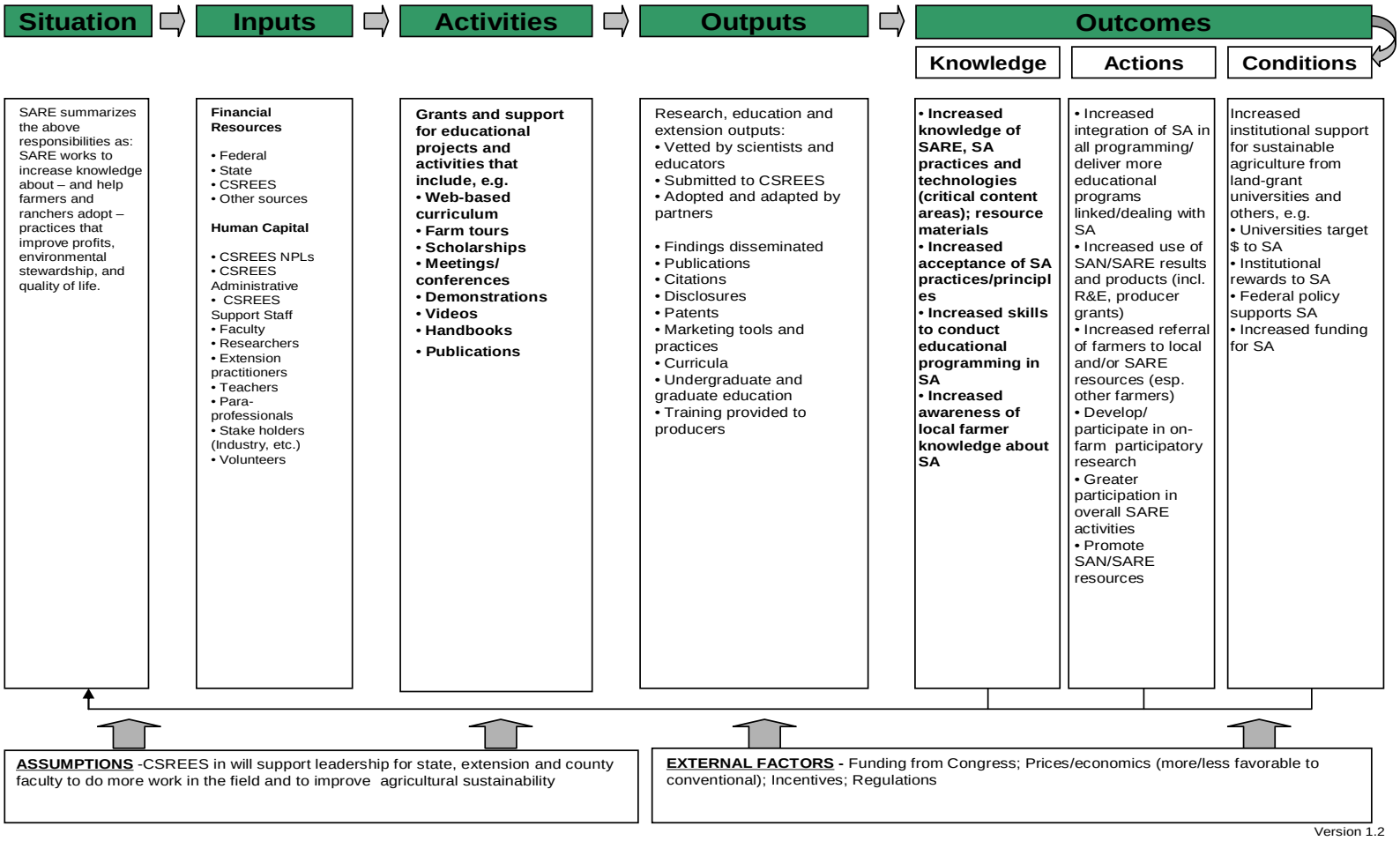
- Strengthen rural communities by creating economic conditions, including value-added products that foster locally owned business and employment opportunities

SARE agriculture, and the Sustainable Agriculture Research and Education program (SARE) celebrated its 20th anniversary in 2008. With this anniversary, the program chose to take the time to look to the future and identify new goals for their efforts…..

KA 902 Logic Models

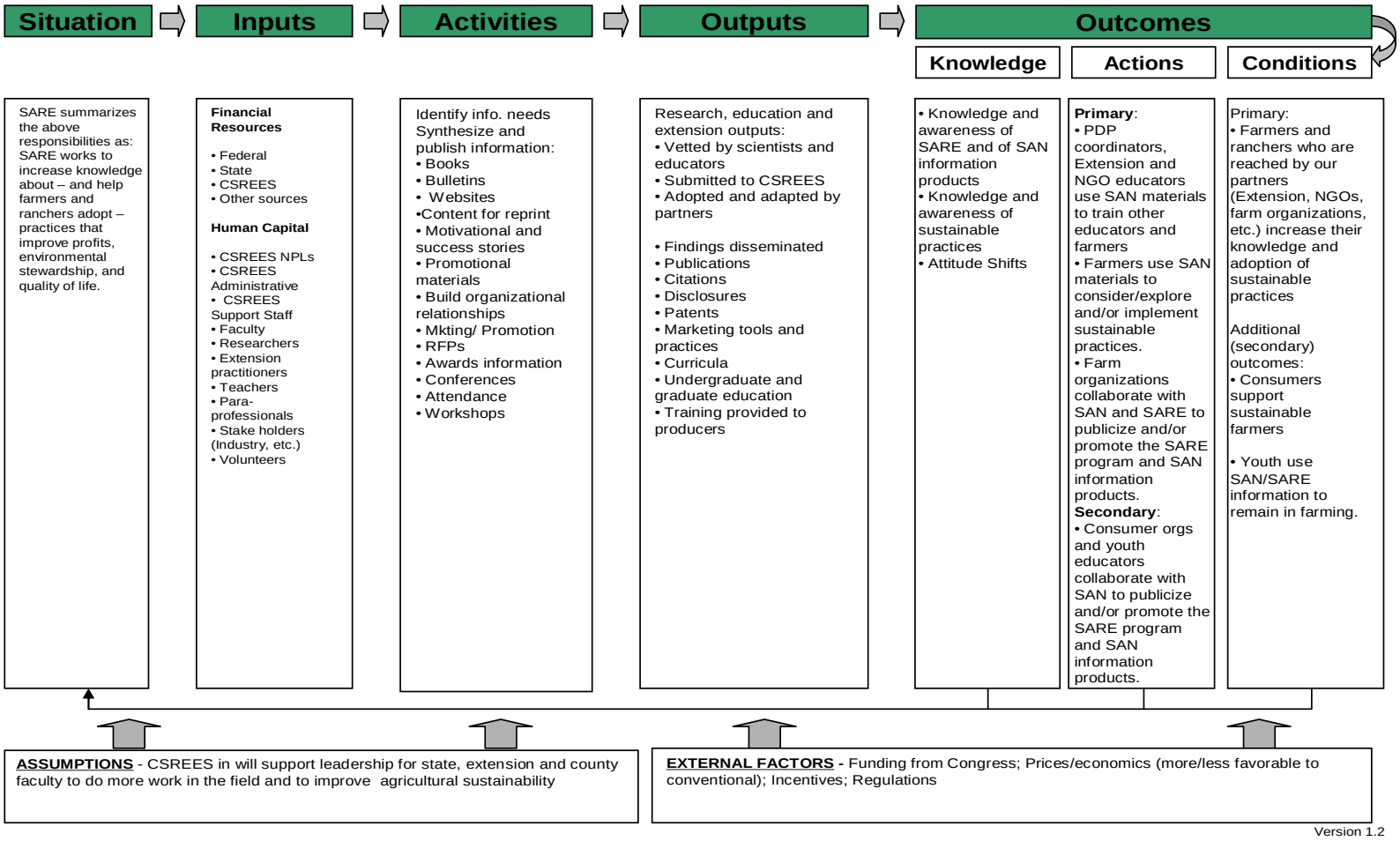


KA 902: Sustainable Agriculture
Professional Development Program Grants and State PDP Training Funds



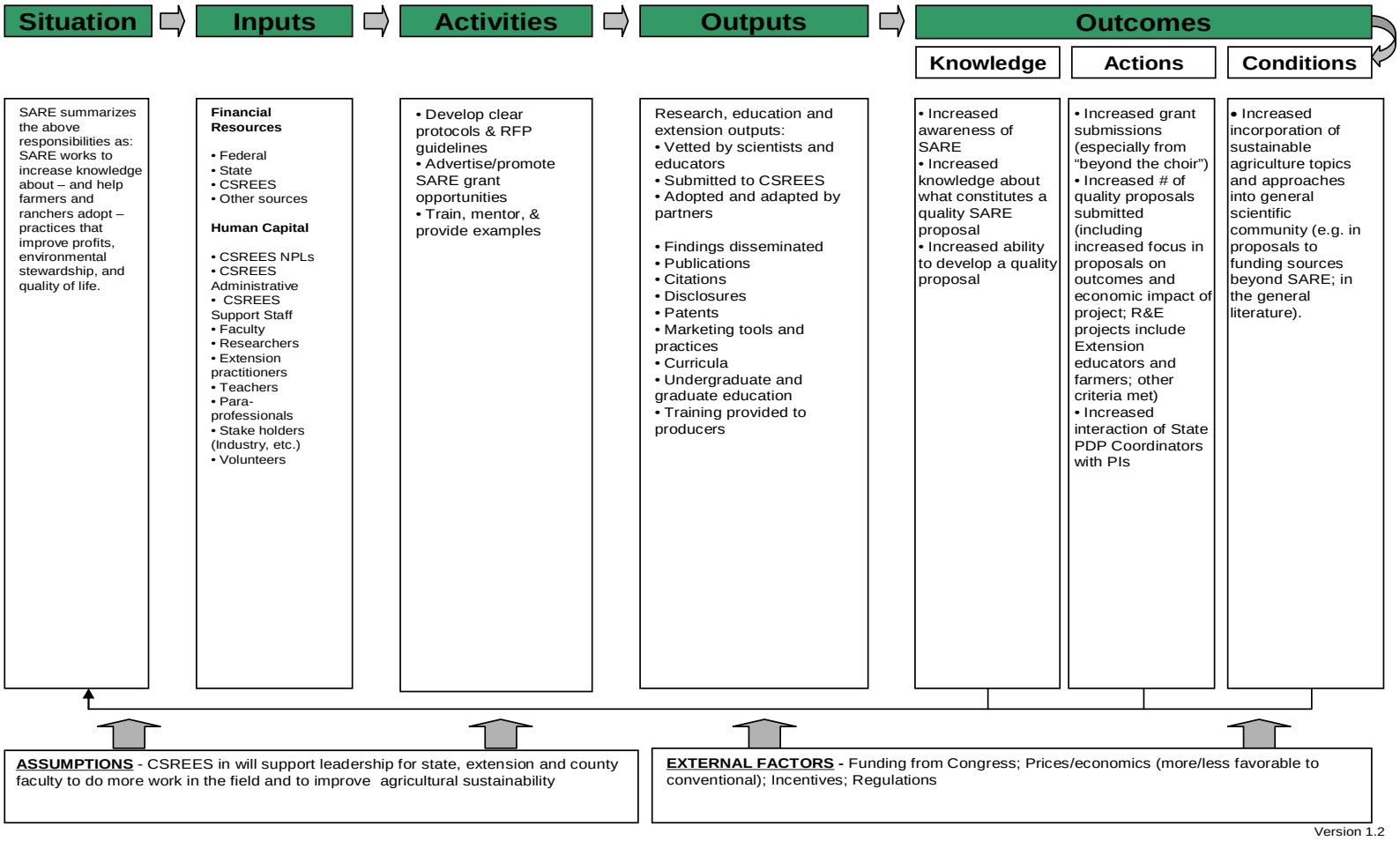
Version 1.2

KA 902: Sustainable Agriculture Communications



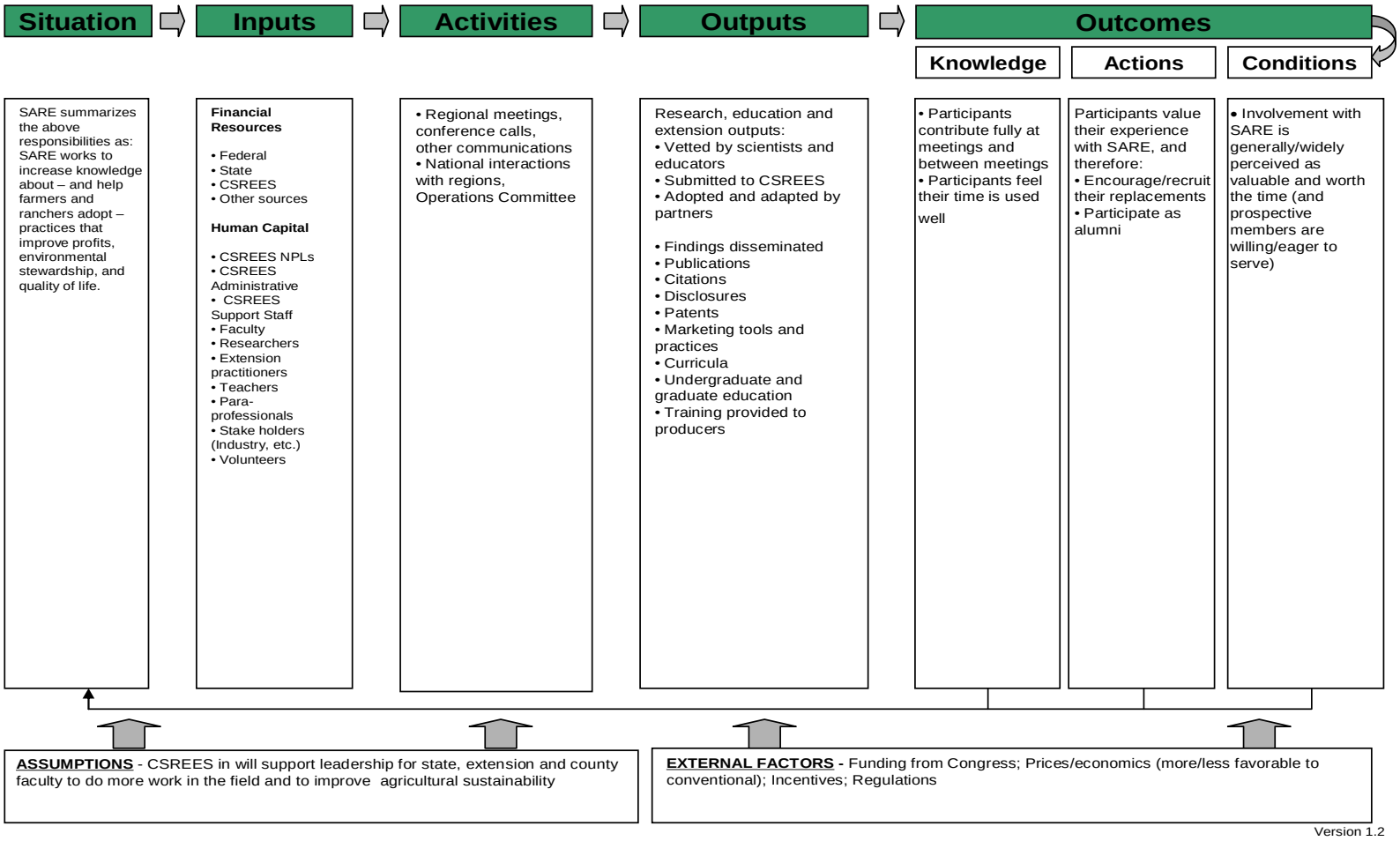
Version 1.2

KA 902: Sustainable Agriculture Proposal Process



Version 1.2

KA 902: Sustainable Agriculture Administration



KA 902 Key Outputs

The Sustainable Agriculture Research and Education (SARE) program has awarded grants to more than 3,700 projects in its 20-year lifetime. The impacts of those projects have made a real difference to the lives of farmers, ranchers, and to the agricultural community nationwide. For example:

Further, surveys of farmers, extension educators, and researchers help quantify that SARE is achieving results on the ground:

A 2005 survey of farmers and ranchers who received western SARE grants reveals that grant recipient experiences were overwhelmingly positive:

- 64 percent said their SARE project helped them achieve higher sales
- 41 percent reported increased net income
- 79 percent experienced improved soil quality
- 69 percent saw increased wildlife habitat

Farmer/rancher grants also have a positive spin-off effect. Survey respondents said at least five other producers tried their idea, approach or technology on their own farms. A related survey of extension educators and other technical advisers to farmer/rancher grantees supported the farmers' findings. Moreover, two-thirds said they would recommend the approach undertaken in “their” producer's project to others.

Surveys of extension educators – the primary audience for SARE's Professional Development Program – also confirm the tidal wave of interest in more sustainable farming and ranching. The overwhelming majority of educators responding to two regional surveys (96 percent in SARE's north central region and 90 percent in the west) were positive about the importance of sustainable agriculture, and three-fourths of them have led at least one educational program to share innovations in sustainable agriculture with farmers, ranchers and the public.

A survey of southern SARE state coordinators found that most (16 of 19) are either “passionate” or very enthusiastic about SARE. Their enthusiasm likely evolved over time; only one-fourth “really wanted” the responsibility when it was assigned by his or her extension director.

KA 902 Key Outcomes:

Impacts from SARE's grant projects often go well beyond the immediate, planned results. Surveys and interviews with recipients of north central SARE research and education, professional development, and producer grants revealed a variety of spin-off effects, such as:

- seeing new ways of doing things
- meeting new people
- being viewed as leaders in the community
- continuing a program of research/innovation long after SARE funding concludes

The findings cited here came as part of surveys conducted for SARE by independent evaluators:

- Western SARE Survey of Farmer/Rancher Grant Recipients and Technical Advisers
- Western SARE Professional Development Survey
- North Central SARE Professional Development Program Evaluation
- Southern SARE State Coordinator Survey
- North Central SARE Evaluation of Impacts of Research/Education, PDP, and Producer Grants

Beyond SARE

Every land-grant university has some research, extension, and/or education activities in sustainable agriculture. At some universities, these activities are organized through a center, institute, or other formal administrative unit. At others, they are woven into the activities of broader administrative units. Some universities take both approaches. Examples of sustainable agriculture activities at some land-grant universities (but by no means a complete list) include:

- California: The statewide Sustainable Agriculture Research and Education Program of the University of California was established in 1986 as the first land-grant university-based sustainable agriculture program in the country. UC SAREP offers competitive grants, educational opportunities, and information in both print and electronic forms.
- Iowa: Iowa State University's Leopold Center operates competitive grants, interdisciplinary research issue teams, and educational programs statewide. The Sustainable Agriculture Extension page maintained by ISU Extension offers information on publications, training, funding sources, and other links of interest to producers, educators, and researchers.
- Minnesota: The Minnesota Institute for Sustainable Agriculture is a unique partnership between the College of Agricultural, Food, and Environmental Sciences at the University of Minnesota and the Sustainers' Coalition, a group of individuals and nonprofit organizations.
- North Carolina: The Center for Environmental Farming Systems, a partnership of North Carolina State University, North Carolina Agricultural and Technical State University, and the North Carolina Department of Agriculture and Consumer Services, operates a farm dedicated to sustainable agricultural systems and offers information about sustainable agriculture in the state.
- Pennsylvania: Cooperative Extension at Penn State offers information on production, management, and marketing alternatives at its Web site, Sustaining Pennsylvania Agriculture.
- Washington: The Center for Sustaining Agriculture and Natural Resources of Washington State University focuses on facilitation and networking, funding, and education in several program areas: agricultural systems, biologically intensive and organic agriculture, community capacity building, professional development, and small farms.

Section III: Secondary Knowledge Areas

The portfolio is greatly enhanced by several Secondary Knowledge Areas that are highly relevant to improving farm management and sustainability and viability of the nation's farms, ranches, working lands, and the families involved in these operations. The Secondary Knowledge Areas report primarily to other portfolios, but maintain strong linkages in content with this portfolio.

As this portfolio is newly reconfigured in Spring 2008, portfolio team members anticipate further refinement of the interrelationships among and between Primary and Secondary Knowledge Areas reporting into the portfolio and further clarification of the emerging issues relating to the goal and vision of the portfolio in strengthening and supporting the management expertise, sustainability, and viability of all operations, regardless of size, length of operation, location, or means of production.

Secondary KAs:
- KA 801 Family Resource Management and
- KA 607 Consumer Economics
- KA 605 Natural Resources and Environmental Economics
- KA 602 Business Management, Finance, Taxation, & Estate Planning
- KA 610 Domestic Policy Analysis

Secondary KA 602. Business Management, Finance, and Taxation

Secondary KA 602 Introduction

This work focuses on the management and administrative techniques applied to farming, agricultural business, and other businesses and enterprises to enhance planning, decision making, and resource use. These techniques help businesses make effective financial decisions, stay in the marketplace over the long term, and increase profitability. It includes the analysis of effects of taxation on profitability. The National Farm Extension Income Tax Committee conducted over 100 tax clinics during the reporting period, as it has been doing for the past 50 years. The tax clinics assisting farmers, ranchers, and their financial and legal advisors in understanding the tax provisions important to creating viable farm operations. The Committee met in May 2008 with the Internal Revenue Service, as it does every year, to craft Publication 225, which is the Farm and Ranch Tax Guide.

Secondary KA 605: Natural Resources and Environmental Economics

Secondary KA 605 Introduction

This work focuses on understanding economic relationships, decisions, and impacts relating to the management and use of public and private natural resources, and the environment. Work in this area also focuses on the economics of improving the efficiency of agricultural, forest, and rangeland use while minimizing negative impacts on the environment.

Secondary KA 605 Key Outcomes for 2008

- Kentucky: Pre- and post-training testing indicated an average 66% increase in knowledge. Post-training evaluation indicated that a total of 750 small logging firms were able to comply with state regulations and 229 of these were new firms that were provided the necessary training to comply with state law requirements enabling them to continue logging. These firms provide income for 2,236 individuals (owners or employees) the majority in rural and semi-rural economies. Environmental assessment of program participants indicated that best management practices usage ranged from 80 to 90 percent for streamside management zones and haul road and skid trail drainage control practices to 30 to 40 percent for the use of improved stream crossings and successful re-vegetation of skid trails. The end result was 128 perennial streams and 354.9 intermittent streams were provided protection from sediments.

- Chesapeake Bay: Agents and specialists are advocating for use of no-till crop production where feasible. A number of demonstrations detailing appropriate techniques and methods of no-till crop production have been conducted. In 2000, the Northeast Extension District had less than 10,000 acres in continuous no-till crops. By 2007, a survey showed the area had increased to over 280,000 acres (83%) of total grain cropland in continuous no-till. During the same time period the statewide continuous no-till crop acreage increased from 5% to 41% (440,000 acres). Producers received cost-share funding to implement most of the BMPs. The economic impacts of these practices are evaluated in most cases. Experimental data are also being collected to support the environmental benefits of these practices. The adoption of agriculture BMP's has been increasing at an additional 5% of acres annually.

- Compliance to federal regulations is important to operators of animal feeding operations (AFO) or Concentrated AFOs (CAFOs). Land-grant universities developed web sites on agro-security and agro-emergency. A video was produced on AFO/CAFO for Montana State University Water Center and for other training efforts. Presentations, workshops and trainings have been conducted for commodity groups and operators and for small land owners on stocking rates of horses, sheep and exotics as well as manure management and small pasture management. The information has helped producers keep required records to meet state Department of Environmental Quality regulations for manure exports from AFOs and to reduce their liability should pollution result from the improper use of the manure. Information on obtaining a manure analysis was provided to operators along with recommendations for acceptable application practices. A particular on-site assistance has saved one producer nearly $7,000. While data is not yet available, this operation is expected to be able to offset the purchase of more than 30,000 lbs. of commercial nitrogen fertilizer. At 150 lbs. nitrogen per acre, this could fertilize over 150 acres of hay land, reducing production cost and increasing its profits.

- Louisiana: The health and well being of Louisiana's citizens depend on its resource-based economy. A new technique for estimating the economic impacts of hurricanes to coastal fishing infrastructure was developed. The new method allows for a more rapid and spatially precise estimate of damages to fisheries infrastructure. During 2007, the results of this assessment provided the basis for more than $200 million in funding for fisheries recovery in Louisiana. Several applied research projects have

been developed to examine the economic aspects of Louisiana's wetland restoration and preservation initiatives. Results indicate that in recent years restoration agencies have begun to abandon economic metrics in favor of more subjective, political criteria for project selection (e.g. project type, location, and sponsor). The net result of this trend has been an increasing loss of program efficiency in the allocation of nearly $1 billion in project spending since 1991. This research result demonstrates the loss of public funds when decision making does not conform to science-based recommendations.

Secondary KAs 607 Consumer Economics and 801 Family Resource Management

Secondary KAs 607 and 801 Introduction:
Knowledge Area 607 activities provide insight and understanding into the demands, preferences, behavioral responses, and needs of individuals and consumers. This work provides insight and understanding about how consumer choice drives market economies, and how consumer policy, advertising, and other market forces influence consumer demand.

Work in Knowledge Area 801 provides an understanding of how individuals and families obtain and use resources of time, money, and human capital to achieve their standard of living and overall quality of life. This area is also concerned with factors affecting the decision-making process, such as availability of resources, life events, living patterns, values, goals, interests, and attitudes of families, and external forces such as public issues, policies, and programs.

Secondary KAs 607 and 801 Key Outputs:
Three educators from Iowa and Illinois Extension spent one week each in Washington, DC. They presented seminars on Annie's Project; connected with strategic partners in USDA, the U.S. Treasury Department, the Federal Reserve Board, a Russian delegation funded by World Bank, and the American Savings Education Council, and provided guidance for national leadership to link professionals working on farm finance and family finance. A session on *Managing Farm and Household Financial Risk* was accepted for the 2008 American Council on Consumer Interests/American Agriculture Economics Association annual conference. An Extension webcast on integrating farm and family finances drew more than 120 participants from 13 States.

Secondary KAs 607 and 801 Key Outcomes:
About 1150 Extension professionals (250 farm management; 900 financial security) increased knowledge about integrated farm and family finance educational programs. Annie's Project gained national Extension exposure and expects an increase of participation from 17 States to 25 States reaching 2500 women with programming in 2008. Achievement of this projection will give Annie's Project a total of over 7300 participants since 2003. CSREES leadership identified a strategic focus of farm succession and estate planning where Farm Management and Financial Security professionals, along with agricultural lawyers, can work in local teams.

Secondary KA 610. Domestic Policy Analysis

Secondary KA 610 Introduction
This work focuses on the economic and social impacts of domestic programs and policies, including the effect of government actions on the U.S. The work in this area analyzes the long term effects of government actions, which influences how the U.S. develops and implements policies.

Section IV: External Panel Recommendations

Relevance

Scope
Panel Recommendation
The wide variety of projects exceeds expectations, but the declining number of undergraduate and graduate degrees awarded in agricultural economics, and the declining number of doctoral degrees awarded in agricultural economics may inhibit future research capacity.

- Portfolio Response in 2008:

No major change from 2007 response. While agricultural economics degrees continue to decline or at minimum flat line, the number of students in the land grant system seeking degrees in agroecology or other sustainability related areas is on the increase. While SARE's legislation emphasizes research and extension rather than formal education, SARE contributes to higher education in two ways: through SARE Graduate Student grants, and through involvement of undergraduate and graduate students in SARE Research and Education (R&E) grants. In both cases, students gain experiential knowledge in planning and conducting applied research and extension in sustainable agriculture. From 2002 through 2006, SARE awarded 127 Graduate Student grants, for a total of $1.2 million dollars (a subset of those included in the total SARE funds reported in the Farm Management for Sustainability portfolio.) In addition, approximately three-fourths of SARE R&E grants employ undergraduate and/or graduate students (from 70% in the West to 82% in the South), approximately 227 projects involving students from 2002-2006. Such projects typically involve 2-3 undergraduates and 2 graduate students each. Student involvement is more than working for wages; from 30% (in the West) to 53% (in the South) of R&E projects had students who authored or co-authored a scholarly paper or article based on the SARE project. These contributions are elaborated upon in the CSREES Education portfolio (KA 903).

- Portfolio Response in 2007:
  CSREES administers the competitive Food and Agricultural Sciences National Needs Graduate and Postgraduate Fellowship Grants Program for graduate degree programs and postgraduate training to develop intellectual capital to ensure the preeminence of U.S. food and agricultural systems. Fellowships support students with a stipend and a cost-of-education allowance to the institution. In FY 2005 CSREES received 73 applications requesting $15.2 million, and made 39 awards totaling $5.672 million to support 22 Master's and 75 Ph.D. fellows.

- Portfolio Response in 2006:

In fiscal year 2005, four of the 31 National Research Initiative programs solicited research proposals addressing sensing, detection, or monitoring/measurement methods (food safety, nano-scale science and technology, plant biosecurity, animal disease countermeasures, and air quality). The nanotechnology program focused specifically on sensor development as a priority area. A total of 13 sensor-related projects were funded by the NRI in 2005. The SBIR program continues to support sensor technology development across many of its 12 program areas. Eighteen sensor-related projects were funded by the SBIR program in fiscal year 2005.

Focus

Panel Recommendations

- Probably have more wood construction projects than needed.
- Future should include greater focus on bioenergy, bioproducts and nanotechnology.
- Concern about overemphasis given to risk management in PA 601.
- Concern that CSREES is becoming an implementer of other agencies' programs; (e.g. Risk Management Agency and Trade Adjustment Assistance programs);
- CSREES needs to be a more proactive leader in research areas of critical need.

- Portfolio Response in 2008:

As was provided in the Portfolio Response in 2007, the relevant 401, 402 and 404 KAs were moved to the Food and Nonfood Products Development Portfolio. There are many programs within CSREES that address the farm management needs of America's producers, particularly within research and extension arenas. Some research programs such as, the Markets and Trade program are funded by the NRI, while the Agricultural Prosperity for Small and Mid Sized Farms Program is funded by both NRI and SBIR. The SARE Program funds many farm management related projects and the RME program funds farm management, financial m management and risk management programs. Beginning in 2008, the Beginning Farmers and Ranchers Development Program will find its home in this portfolio. The BFRDP was passed by Congress for inclusion in the 2008 Farm Bill and provides $18M funding for 2009 and $19M in the years 2010 – 2012. This program will provide funding for outreach, training, technical assistance and education for those who are new to or entering farming or ranching and is focused on improving the skills of these producers to succeed and reach sustainability. Historically, the largest program in this knowledge area dealing with farm profitability was in the Initiative for Future Agricultural and Food Systems (IFAFS) program of that same name and was funded at approximately $20-25 million in both 2000 and 2001. IFAFS has not been funded since 2001. The Risk Management Education Program which deals with all five areas of risk (production, marketing, human resource, legal & environmental, and financial) addresses the priority issues revolving around the farm management topic area and therefore is an appropriate program to highlight.

CSREES implements programs as directed by Congress such as the Risk Management Education (RME) Program. The Agricultural Risk Protection Act (ARPA) of 2000 specifically directed the Risk Management Agency (RMA) to provide $5 million to CSREES for the implementation of a broad, risk management

education program. In comparison, the RMA has an additional $20 million that it uses for various risk management education programs. In the Trade Bill of August 2002, Congress also directed the USDA to develop a Trade Adjustment Assistance (TAA) Program for farmers. This program is under consideration by Congress for reauthorization in late 2008. While the Foreign Agricultural Service (FAS) became the Executive agent for the program under prior authorizing legislation, it requested CSREES to participate since the law required that farmers must receive technical assistance on how to adjust to import competition from an "Extension Service agent or employee" before they are eligible to receive cash benefits or Department of Labor re-training benefits. Versions of the reauthorized TAA program for Farmers and Fishermen will again rely heavily on training and technical assistance to ensure farmers are able to adjust to import competition through diversification of their operations and improved or updated business planning.

It is only logical that CSREES agreed to participate in the TAA Program given the requirements in the law. It should be noted that other agencies are also involved in this program, namely FAS as the overall manager, ERS as a technical reviewer of petition information and data, FSA as the receiver of applications and the purveyor of cash benefits, and the Department of Labor. Reauthorization language may also determine CSREES as a likely partner in providing TAA if the new law is passed. In conclusion, the RME Program is a congressionally directed program, and the TAA Program law contains language that provides a fully valid reason for CSREES' involvement.

- Portfolio Response in 2007:
  Please refer to the Food Processing and Bio-Based Products Portfolio, which includes the following KAs to address the first two concerns. As stated earlier, KAs 401, 402, and 404 were moved to the Food and Non Food Products Development Portfolio. They will be assessed by the end of 2007 and will feature issues raised above.
  Knowledge Areas:
  - 401: Structures, Facilities, and General Purpose Farm Supplies
  - 402: Engineering Systems and Equipment
  - 404: Instrumentation and Control Systems

  The following addresses the remaining concerns:
  There are many programs within CSREES that address the farm management needs of America's producers, particularly within research and extension arenas. Some of research programs such as, the Markets and Trade program are funded by the NRI, the Small and Medium Farms Program is funded by both NRI and SBIR. The SARE Program funds many farm management related projects as well. Historically, the largest program in this knowledge area dealing with farm profitability was in the Initiative for Future Agricultural and Food Systems (IFAFS) program of that same name and was funded at approximately $20-25 million in both 2000 and 2001. IFAFS has not been funded since 2001. The Risk Management Program which deals with all five areas of risk (production, marketing, human resource, legal & environmental, and financial) addresses the priority issues revolving around the farm management topic area and therefore is an appropriate program to highlight.

CSREES implements programs as directed by Congress such as the Risk Management Education (RME) Program. The Agricultural Risk Protection Act (ARPA) of 2000 specifically directed the Risk Management Agency (RMA) to provide $5 million to CSREES for the implementation of a broad, risk management education program. In comparison, the RMA has an additional $20 million that it uses for various risk management education programs. In the Trade Bill of August 2002, Congress directed the USDA to develop a Trade Adjustment Assistance (TAA) Program for farmers. While the Foreign Agricultural Service (FAS) became the Executive agent for that program, it requested CSREES to participate since the law required that farmers must receive technical assistance on how to adjust to import competition from an "Extension Service agent or employee" before they are eligible to receive cash benefits or Department of Labor re-training benefits.

It is only logical that CSREES agreed to participate in the TAA Program given this requirement in the law. It should be noted that other agencies are also involved in this program, namely FAS as the overall manager, ERS as a technical reviewer of petition information and data, FSA as the receiver of applications and the purveyor of cash benefits, and the Department of Labor. In conclusion, the RME Program is a congressionally directed program, and the TAA Program law contains language that provides a fully valid reason for CSREES' involvement.

- Portfolio Response in 2006:
  Since 2001, CSREES has actively participated in the coordination, leadership, planning, and management of nanotechnology under the framework of the National Nanotechnology Initiative (NNI), which currently involves 23 Federal departments and agencies. Through the NNI, the agency is taking a concerted effort in charting the course for the research, education and public engagement for nanoscale science, engineering and technology. The importance of the new cutting edge science and technology on improving agriculture and food has gained an increased recognition among the NNI agencies. A number of projects relevant to agriculture and food systems have been funded by several NNI agencies to support activities led by our LGU partners.

  The agency has strengthened the investment in nanotechnology research by having established a new competitive program in National Research Initiative (NRI). The program has funded 15 excellent projects of a total of about $4M for FY04 and 05 in a broad spectrum addressing important agricultural and food issues such as novel and high value-added uses of agricultural materials, improving food safety and security against bio-terrorism, new tools to study biological systems and processes, improving the environment, and effective delivery systems for bioactive compounds in food to facilitate optimal health of consumers. The agency also funded two projects to develop nanotechnology curriculum through the Higher Education Challenge program. Inspired and encouraged by the agency new effort in supporting nanotechnology research and education, many new research projects are now supported by formula funds at experimental stations throughout the country. A multistate research committee (NCDC-201: Nanotechnology and Biosensors) has formed and is in its final stage of preparing the committee proposal. There are also a number of projects supported by SBIR program.

Engineering aspects of materials handling, transport, land use and storage of crop, forest and range products are major issues to be taken into consideration for efficient and cost effective production of bioenergy and bioproducts. Currently, projects that address bioenergy and biobased products fall under PA 511-New and Improved Non-food Products and Processes, and PA-512 Quality Maintenance in Storing and Marketing Non-Food Products. The majority of projects fall under PA 511 and the focus is on conversion technologies.

Emerging Issues

Panel Recommendation

- Concern one: Sensors for food safety and security will be important in the near future and will need more research focus.
- Concern two: When current Concentrated Animal Feeding Operations (CAFO) regulations are extended to smaller operations, engineering and economic research and extension will be needed.

- Portfolio Response in 2008:
  Concern One: Please refer to the Food Processing and Bio-Based Products Portfolio, which includes the following KAs to address the first concern:

  Knowledge Areas:
  - 401: Structures, Facilities, and General Purpose Farm Supplies
  - 402: Engineering Systems and Equipment
  - 404: Instrumentation and Control Systems

While not related to sensors for food safety, it should be noted that the Western Region RME Center partnered with the Western Region Farm Management and Marketing Extension/Research Committees in co-sponsoring a discussion of food safety regulation and liability issues during their 2008 joint meetings. This discussion followed the spinach food safety crisis and preceded the tomato salmonella crisis and is expected to be adopted by other regions in the RME program as a critical subject area relating to risk management education on the full range of risks producers face.

- Concern two: When current CAFO regulations are extended to smaller operations, engineering and economic research and extension will be needed. The following is in response to concern two:

As reported in the 2007 response below, CSREES funded a Hatch project to support and evaluate farm level decisions. To date, the following insights that have been gathered from this project contribute to: (1) the improvement of farmers' overall performance; (2) the process of tactical and strategic farm management; (3) the development and evaluation of agricultural and conservation policies; and (4) the formulation of the technical and economic research agenda regarding multifunctional cultural landscapes.

Additionally, the RME program has sponsored several projects focusing on environmental regulations relating to livestock producers. The RME program recognizes

environmental and regulatory risk as one of the major risk areas producers face and will continue to entertain competitive funding requests addresses the potential for CAFO regulations being more specifically applied to smaller farming and ranching operations.

- Portfolio Response in 2007:
  Please refer to the Food Processing and Bio-Based Products Portfolio, which includes the following KAs to address the first concern:

  Knowledge Areas:
  - 401: Structures, Facilities, and General Purpose Farm Supplies
  - 402: Engineering Systems and Equipment
  - 404: Instrumentation and Control Systems

  - Concern two: When current CAFO regulations are extended to smaller operations, engineering and economic research and extension will be needed. The following is in response to concern two:

  To address this concern, in fiscal year 2006, CSREES funded a Hatch project at North Carolina State University entitled "Farm Level Decisions, Effectiveness of Conservation Policies and Sustainable Land Use." Thirty percent of the project is classified under KA 601, while the other 70% is classified under KA 605 – Natural resource and Environmental Economics. In terms of the field of science, 100% is embedded in economics. The purpose of this Hatch project is to support and evaluate farm level decisions and policy designs in the context of sustainable land use and agricultural production. The project takes a multi-disciplinary approach to the investigation of the production-economic, environmental and sociological performance of different land use systems at the farm and regional level in an integrated way. (Please see appendix for more information on project progress)

- Portfolio Response in 2006:
  In 2005, the NRI's Plant Biosecurity program solicited proposals for evaluating field-based diagnostic and communications tools, real-time monitoring technologies, and associated implementation strategies to promote early detection of high consequence disease/pests prior to their establishment and spread. These emphases represent a shift away from traditional diagnostic facilities (funded previously) toward more technology-based solutions (including sensing mechanisms). Similarly, the 2005 Animal Protection program included within its emphasis area, Animal Disease Countermeasures, a goal to improved diagnostic methods/ pathogen detection systems that provide a foundation to better understanding disease epidemiology and ecology.

  In 2005 a new USDA Small Business Innovation Research (SBIR) program was started for Animal Waste Management. This program is intended to encourage small businesses to develop technologies for managing or treating animal manures and wastes from confined feeding operations. CSREES and other USDA agencies are working with EPA to coordinate research needs for animal feeding operations. The six committees were initiated in 2005 and included: air emissions, microbial source tracking, chemical source tracking, manure management processes, land application and technology transfer.

Integration
Panel Recommendation

- Major needed transition to more integrated work has been made and is doing quite well.
- Principal investigators should be given incentives to take more responsibility for extending research results.

- Portfolio Response in 2008:

  On November 6, 2007, CSREES, along with the American Society of Agronomy (ASA), the Crop Science Society of America (CSSA), and the Soil Science Society of America (SSSA), sponsored a workshop on integrated competitive programs that took place in New Orleans, LA. On March 10 -11, 2008, CSREES, along with Florida A&M University, sponsored another workshop on integrated competitive programs that took place in Memphis, TN. Each workshop featured an introduction to CSREES and integrated programs, an understanding of the review process, electronic application process, tips for success and additional workshop plenary information.

  In addition to these activities, in late 2007 NPL for Farm Financial Management conducted a half-day grantsmanship training workshop at the annual meeting of the Intertribal Agriculture Council. This annual meeting is attended by over 500 American Indian agricultural producers and related organizations, including Tribal governments. Significant attention was paid to providing attendees information on integrated competitive programs. This training took place in Las Vegas, NV in December 2007. Encouraging integrated research, education and extension projects within the 1994 and related Native American producer and Tribal Land Grant communities is a priority of those working within the portfolio areas.

- Portfolio Response in 2007:

  In October 2005 CSREES organized and held a one day workshop to identify strategies for enhancing the effectiveness of integrated competitive programs. The workshop included presentations and participation by Principal Investigators and National Program Leaders involved with integrated programs. Breakout sessions identified various strategies that included possible incentives for extending research results that will enhance the overall relevance and effectiveness of integrated programs.

  In the near future, principal investigators will have more guidance from CSREES in providing results on a consistent basis after the rollout of the One Solution System, which will be a one-stop portal of accountability for all Research, Education, and Extension investments. More information is included under the “Portfolio Accountability” section.

- Portfolio Response in 2006:
  In October 2005 CSREES organized and held a one day workshop to identify strategies for enhancing the effectiveness of integrated competitive programs. The

workshop included presentations and participation by Principal Investigators and National Program Leaders involved with integrated programs. Breakout sessions identified various strategies that included possible incentives for extending research results that will enhance the overall relevance and effectiveness of integrated programs.

Multidisciplinary
Panel Recommendation
Work on sensors will need to be multidisciplinary, integrating with other sciences (physics, chemistry and biology) outside of historic working relationships.

- Portfolio Response in 2008:
  As examples of increased funding of multidisciplinary, integrated projects, in fiscal year 2007, the Agricultural Prosperity for Small and Medium-Sized Farms program funded 11 projects. Also in fiscal year 2007, CSREES funded an engineering project through the Small Business Innovation Research program under the Rural Development topic area, entitled "*An Innovative Cost-Effective Active Warning System for Improved Safety at Rural Railroad Crossings.*" The long term objective of this project is to demonstrate the commercial and economic feasibility of a low-cost, vital railroad crossing. The Phase II research will produce a prototype of a vital, low-cost, effective and reliable crossing signal system by incorporating anisotropic magneto-resistive sensors, reliable low-cost, low power spread spectrum radios, a vital processing unit and photovoltaic or primary battery power systems. This project will result in an innovative, vital technology that will enable federal, state agencies and railroads to install active warning devices at rural grade crossings, saving human lives and reducing serious injuries. The knowledge area classification for this project is 723, and it includes 100% engineering.

- Portfolio Response in 2007:
  Beginning in mid-2004, CSREES began administering the Agricultural Prosperity for Small and Medium-Sized Farms program, which is under the National Research Initiative. The purpose of this program is to foster interdisciplinary studies to improve our understanding of the interactions between the economic and environmental components important to the long-term viability, competitiveness and efficiency of small and medium-sized farms (including social, biological and other components, if necessary). This program attempts to bring together and integrate disparate work conducted separately on each of these factors in the past. Program outcomes are expected to provide new insights to the factors that enhance rural prosperity, especially for smaller producers. To date, 15 projects were funded in fiscal year 2005, and 13 were funded in fiscal year 2006.

  While not sensor-specific, the inclusion of KA 723 allows demonstration of a wide variety of interdisciplinary and multidisciplinary working relationships. State AgrAbility projects in Oklahoma, Colorado, Delaware-Maryland, and Pennsylvania incorporate faculty and staff from their respective Land Grant University departments of education, biological systems engineering; the cooperative extension service; local occupational and physical therapists; and non-profit disability organizations.

Successful implementation of a state AgrAbility project is dependent upon cooperation and collaboration between multidisciplinary entities.

- Portfolio Response in 2006:
  Beginning in mid-2004 a new competitive grants program (appearing in the National Research Initiative) was introduced to improve our understanding of the interactions between the economic, social, biological, and environmental components important to small farms and rural economic development. This program attempts to bring together and integrate disparate work conducted separately on each of these factors in the past. Program outcomes are expected to provide new insights to the factors that enhance rural prosperity, especially for smaller producers.

Quality

Significance
Panel Recommendation
- Midwest Plan Service has been a great source of output, but may need to adopt a self-funding approach. Future funding may be less certain than past.
- Research itself is valuable, but educated young engineers are the greatest output of the system.

- Portfolio Response in 2008:
  Please refer to the Food Processing and Bio-Based Products Portfolio, which includes the following KAs that best address these concerns. Knowledge Areas:
  - 401: Structures, Facilities, and General Purpose Farm Supplies
  - 402: Engineering Systems and Equipment
  - 404: Instrumentation and Control Systems

- Portfolio Response in 2007:
  Please refer to the Food Processing and Bio-Based Products Portfolio, which includes the following KAs that best address these concerns. Knowledge Areas:
  - 401: Structures, Facilities, and General Purpose Farm Supplies
  - 402: Engineering Systems and Equipment
  - 404: Instrumentation and Control Systems

Stakeholder/Constituent Inputs
Panel Recommendation
- System responds well to the engineering needs of producers and agribusinesses.
- CAFO regulations are a great example -- the system had a major role in providing information and shaping the regulations.
- Industry has a good working relationship with the agricultural research system in setting priorities.

- Portfolio Response in 2008:

  In 2008, the NPL for NRI Agricultural Prosperity for Small and Mid-Sized Operations, the NPL for SARE, RME and Small Farms worked together in coordinating the first of many newsletters focusing on family farm issues. Entitled

the “Farm Family Forum” the initial newsletter discussed the need for estate planning and farm succession planning. The newsletter was issued electronically and was followed by a national webinar on the same subject. Stakeholders and constituents, including private lawyers working in the estate planning arena, were involved in the webinar. Additional newsletters followed by webinars to further discuss the issues will be planned.

eXtension is an interactive learning environment delivering the best, most researched knowledge from the smartest land-grant university minds across America. Via this learning environment and partnering institutions, information about animal manure management can be found on www.extension.org. This information is sponsored by the Livestock and Poultry Environmental (LPE) Learning Center. The LPE Learning Center is a project dedicated to the vision that individuals involved in public policy issues, animal production, and delivery of technical services for confined animal systems should have on-demand access to the nation's best science-based resources. On July 18, 2008 at 2:30 pm (EST), the LPE Learning Center will launch a webcast that will feature an update on Animal Feeding Operations (AFO) reporting regulations, application of the Clean Air Act for animal operations, and recent developments regarding greenhouse gases, national ambient air quality standards among others. Speakers will also discuss the National Air Emissions Monitoring Study NAEMS, a project monitoring air emissions from roughly 20 livestock and poultry facilities as part of the Air Quality Compliance Agreement for Animal Feeding Operations (commonly known as the “Consent Agreement”).

In reference to the NRI project indicated in the 2007 response, progress to date includes the following: In spring 2007, interviewers summarized the cluster findings and began meeting with members from each cluster to update them on the progress of the project and review the interview findings. Cluster profiles are available on the NERCRD web site at http://nercrd.psu.edu/SFIC/SFIC.Profiles.TOC.htm so that the information can be provided to cluster members. The project team established cluster typologies and drafted research questions prior to the management team meeting which was held on May 14-16, 2007 in Ithaca, NY. Conference calls were held every other week to discuss next steps and develop questions for the survey instrument. Meeting minutes were distributed as intermediate outputs to the management team to record step by step progress on the project. In October 2007, the draft surveys and cluster survey mailing lists (compiled as outputs by the team) were sent out to each cluster liaison for review and input. The results of the survey should be compiled by the Survey Research Center in the summer of 2008. From the data collected, the project management team hopes to learn the benefits and challenges to farmers who participate in a cluster, as well as regional benefits of agricultural clusters, such as impacts on the local community and marketing practices used. The group hopes to show how the ways cluster participants work together might be improved through knowledge sharing and cross cluster learning. In-service and outreach programs are planned for the future, and project findings will be shared through potential research publications and extension journals. Summaries of cluster interviews, which include quotes and comments from the interviewees, were disseminated to cluster liaisons. Vulnerabilities relative to other clusters were discussed, giving options to strengthen

the organization of that farm cluster. Profiles released to clusters have improved and refined the understanding of their cluster membership.

In April 2008, the National Women in Agriculture Educators Conference was hosted by the RME program in Oklahoma City, OK. This multi-day conference highlighted successful efforts from around the country in reaching and working with women involved in farming, ranching and working lands. One of the highlights of the conference was a producer panel in which women from all regions of the country discussed with educators their needs in educational programming.

- Portfolio Response in 2007:
  In fiscal year 2006, CSREES funded a project at Pennsylvania State University entitled "Enhancing the Prosperity of Small Farms & Rural Agricultural Communities: The Role of Industry Clusters." It was funded through the National Research Initiative under the Agricultural Prosperity for Small and Medium-Sized Farms topic area. Its purpose was to 1) study industry clusters formed around commodities (e.g., dairy, wines, mushrooms); agricultural practices or philosophies (organic vs. non-organic); and social or ethnic networks (Portuguese, Hispanic, female farmers), and 2) to use computational network analysis to measure cluster effectiveness. Thereafter, the findings would lead to the development of recommendations for improving the efficiency of small farmers, and delivering extension information to small farmers. The potential impact of this project is anchored in conducting systematic studies and analyzing results of data from successful clusters to generate results that will help provide much needed information to small farms and rural communities. Measurements of industry cluster characteristics and effectiveness will result in improvements that will eventually benefit American agriculture. To date, it is too early in the project to confirm this impact, but the participants (research subjects) all see the value of the effort and are participating with great enthusiasm.

Alignment

Panel Recommendation

- Historical alignment of portfolio with needs seems good.
- Harvesting of biomass materials may justify developing new machine concepts.
- Substantial need for mechanization in crops that have high labor requirements. For example, labor cost may force U.S. producers out of the tree fruit business. Such work is now acceptable to labor because replacing 2 to 3 workers out of the group is better that having no work for everyone when jobs are exported.

- Portfolio Response in 2008:
  Please refer to the Food and Non Food Products Development Portfolio, which includes the following KAs that best address these concerns.

  Knowledge Areas:
  - 401: Structures, Facilities, and General Purpose Farm Supplies
  - 402: Engineering Systems and Equipment
  - 404: Instrumentation and Control Systems

- Portfolio Response in 2007:
  Please refer to the Food and Non Food Products Development Portfolio, which includes the following KAs that best address these concerns. Knowledge Areas:
  - 401: Structures, Facilities, and General Purpose Farm Supplies
  - 402: Engineering Systems and Equipment
  - 404: Instrumentation and Control Systems

- Portfolio Response in 2006:
  Staff continues to work with industry groups (tree fruit, citrus, grapes etc.), universities, and other federal agencies to identify important science and application needs and opportunities in the areas of automation and robotics. A ten-agency working group commissioned (2004) and completed (2005) an evaluation of world-wide robotics R&D; the agency has a representative in this group. That representative also authored a while paper entitled, "Increasing Economic Competitiveness and Worker Safety in U.S. Horticultural and Specialty Crops" that provides justification, and a broad outline, for increased R&D in the areas of automation and robotics. This document has been shared with the multi-agency working group and, in another instance, with individual representatives from NSF and NIH. Automation in any industry decreases the number of low-skill, low-wage jobs, but increases the total number of jobs overall. These new jobs occur in occupations that have higher pay and require better education.

  The 2004-2005 Biomass R&D Initiative (joint USDA and Dept. of Energy) has been funding projects dealing with new machines and processes for harvesting, handling, and storage of biomass feedstocks, for example corn Stover and small-diameter timber. While the agency does not administer this program, the program's enabling legislation charges CSREES with the responsibility for technology transfer of R&D results. This occurs primarily through agency partnership with Cooperative Extension. Additionally, a multistate research committee (S-1007: Science and Engineering for a Biobased Industry and Economy) will be conducting site reviews of the 2004 projects. The committee will document the relevance and quality of the projects through reports that describe progress, impacts, and technology transfer activities.

Methodology

Panel Recommendation

The panel believed that the portfolio demonstrated that CSREES-F+S usually applied appropriate/cutting edge methodology. Panel members recognized the peer-review process for research proposals assures current methodologies are being used.

- Portfolio Response in 2008:
  CSREES achieves its mission to advance knowledge for agriculture, the environment, human health and well-being, and communities through its two functions of program leadership and Federal assistance. Ninety-six per cent of CSREES' funds support research, education, and extension programs through competitive grant funding. To receive these funds, CSREES' partners must submit plans, either as proposals or as plans of work, and report on the results of their activities. These plans and reports

serve as the primary source of information for the agency regarding grantee plans and results from work supported by CSREES funds, and thus serve as the foundation for evaluating progress towards program goals and effectiveness of CSREES programs. The agency is working with its partners to improve reporting on outcomes (changes in knowledge, action, and/or condition) to better support these needs.

- Portfolio Response in 2006:
  There are continuing efforts to encourage faculty in the Land Grant system to use research, teaching, and extension practices that will measure changes. There has been a greater emphasis on measuring the impacts of the efforts such as money saved, health improvements, and water quality improvements. The use of the logic model where expected impacts are described has helped in the planning of research, teaching, and extension activities.

Performance

Productivity
Panel Recommendation
Productivity meets expectations. For example, research funding in engineering divided by the number of published reports results in an average cost of $20,000 per publication; this is comparable to the cost of hiring a graduate student who produces one publication per year.

- Portfolio Response in 2008:
  As part of the CSREES Risk Management Education program, CSREES provides $300,000 annually to fund the Digital Center for Risk Management Education, which is housed at the University of Minnesota. The following are the six objectives of the Digital Center:

  - To maintain and expand the National Ag Risk Education Library as the national source of risk management information, materials, and software. The Library will continue to be developed and expanded as a comprehensive, well organized, and easily accessed electronic source of risk management education materials.
  - To continue to support and expand the components of the National Ag Risk Education Library, including the crop and livestock budget library, and the FINBIN farm financial database.
  - To support and further develop the existing online Results Verification System. This system facilitates proposal submission and reporting for risk management competitive grants. All four regional centers have been using this system since 2002 to receive and manage grant proposals and reports.
  - To support the four regional Risk Management Education Centers in the creative use of technology to improve delivery of risk management education.
  - To encourage innovation and collaboration in risk management education by building upon our strong relationships with 1890 institutions and community based organizations that serve limited resource producers, and with the private sector -- including the crop insurance industry and commodity organizations.

- To continue to support and work closely with the four regional Extension Risk Management Education Centers to provide leadership and technology innovation for risk management education.

The Digital Center for Risk Management Education is part of the Department of Applied Economics at the University of Minnesota. It is also part of the Center for Farm Financial Management at the University of Minnesota. The Center currently has twelve staff including five extension economists in farm management and marketing, three computer programmers, one web programmer, one web graphic designer, and one technical support person.

The Digital Center has extensive experience designing, developing and operating large interactive websites. The Center has provided a broad spectrum of electronic support to the four regional centers for the past six years, including development and operation of the National Ag Risk Education Library (www.agrisk.umn.edu) and the Results Verification System (www.agrisk.umn.edu/verification). In addition, the Center has developed and operates three other major websites: the Trade Adjustment Assistance for Farmers national website (www.taaforfarmers.org), the FINBIN farm financial database website (www.finbin.umn.edu) and the Center for Farm Financial Management website (www.cffm.umn.edu). Collectively, these websites and the staff of the Center constitute the largest critical mass of technical and extension farm management expertise within the land grant extension system.

By working through the RME program and funded grants within the regions, the cost of posting outcomes can be greatly reduced and provide greater public access to results and materials of funded programs.

- Portfolio Response in 2006:
  A review of the CRIS tables indicates expenditures by CSREES have increased in FY 2003 and FY 2004 for KA's 402 and 404 and remained level for KA 401. This is consistent with the panel observations and recommendations. Data on publications produced was not available at the time of this review. Average cost of publications based on research funding has not been used as an indication of portfolio productivity for other CSREES portfolios.

  It also should be noted that the purpose of this section (portfolio productivity) is to demonstrate the ability of CSREES to create and provide services through funding, directing, managing and partnering with its various stakeholders. CSREES uses 4% of the agency's total annual appropriation to administer the various programs of research, extension, education, and integrated activities under its more than 100 authorities. These programs include formula funds, competitive grants, federal administration grants, and special grants. The 4% for administration is significantly lower (less than ½) than other federal agencies and shows that the agency does provide efficient use of resources to address a broad spectrum of issues in agriculture, food, and natural resources.

The comments of the external review panel were not directed towards the purpose statement but instead towards the productivity of the external partners (Land Grant System)

Comprehensiveness
Panel Recommendation
Some uncertainty exists because of lack of documentation. The portfolio needs increased funding, more and better strategic planning and thinking (tied to thoughtful outcome measures), and greater focus on critical issues.

- Portfolio Response in 2008:
  CSREES, in partnership with Texas A&M University, started a bi-monthly CSREES Reporting Web Conference Series (RWC) in February 2008. This series originated from requests for more information on various topics identified at the 2007 CSREES Planning and Accountability Mini-Conference. Topics for the series include: 1) Agricultural Research, Extension, and Education Reform Act (AREERA); 2) Plans of Work (POW); 3) Annual Reports; 4) One Solution; 5) CRIS (soon to become CSREES Information System (CIS)); and 6) Outcome reporting. Each bi-monthly Web conference will cover two, 1-hour topics, usually 1 hour on software or report formats and 1 hour on content quality guidance. Half of each session will be reserved for answering questions. Conferences are scheduled for the second Thursday of even months from 2 to 4 p.m. (EST). PowerPoint slides from the conference series can be found under the resources section entitled "New Reporting Web Conference Series", which is on the "Strategic Planning and Accountability" section of the CSREES website.

  In 2008, CSREES is funding an OC40 project that will examine the content and staffing of current CSREES investments in the area of agricultural economics, which involves the convening of a conference that will bring together renowned experts to prepare a report to the Administrator of CSREES containing recommendations for future visioning, content, and staffing. This project comes at a critical time for CSREES, as the agency is looking to reorganize its programs/activities per the new 2008 Farm Bill that streamlines agricultural research by establishing a National Institute of Food and Agriculture (NIFA).

  While funding for the programs contained within this portfolio has not increased in recent years, the portfolio NPLs will engage in strategic planning across all portfolio areas to improve on the comprehensiveness of and the interrelationship of existing programs.

- Portfolio Response in 2007:
  This is an agency-wide issue and therefore should be dealt with on an agency-wide level. However, perhaps because Agricultural Structures and Farm Management Portfolio was the only report that did an analysis of the expected and actual completion dates of the CRIS projects, the comment was one specific to this Portfolio. CSREES will be investigating how best to analyze this information in the future. Some of the issues surrounding completion dates will be addressed by the implementation of the OneSolution System, and the fact two National Program

Leaders are now being assigned to one and only one state. These two topics were discussed in greater detail in Section II.

Timeliness

Panel Recommendation

- Hatch projects should be monitored for timely goals and completion dates. Too many Hatch projects may be allowed to continue for too many years.
- Ensure that projects are completed in a timely manner.

- Portfolio Response in 2008:
  During the past year there were no requested extensions beyond the normal institution determined no-cost extension that are typically requested to account for end-of-year funds. Most projects are completed on time. However, Hatch research projects will be more closely monitored for achieving goals by expected completion dates.

- Portfolio Response in 2007:
  Again, this is an agency-wide issue and therefore should be dealt with on an agency-wide level. Please refer to the response above under "Completeness", as it is appropriate as a response to these comments. Furthermore, there are more details about CSREES' efforts in improving accountability across the agency discussed under the "Accountability" section.

- Portfolio Response in 2006:
  This is an agency-wide issue and therefore should be dealt with on an agency-wide level. However, perhaps because Portfolio 1.4 was the only report that did an analysis of the expected and actual completion dates of the CRIS projects, the comment was one specific to this Portfolio. CSREES will be investigating how best to analyze this information in the future. Some of the issues surrounding completion dates will be address by the implementation of the One Solution and the fact National Program Leaders are now being assigned to one and only one state.

Agency Guidance

Panel Recommendation

- We find no evidence or assertion of CSREES bias in program administration.
- Good leadership does exist in specific engineering areas (i.e. nanotechnology) but there is a need to strengthen overall strategic leadership in economics and engineering programs across the portfolio.
- CSREES should carefully evaluate the practice of outsourcing competitive grant programs such as Risk Management Education, SARE and Rural Development centers. Concerns include: Is decentralized regional grants administration more effective than centralized? Is CSREES losing control and accountability? Is there regional coordination among regions?

- Portfolio Response in2008:
  Portfolio leadership strongly support regionally-based programs, where appropriate. RME and SARE programs have highl levels of success in functioning as national programs with regional delivery. Approaches to farm management and to sustainability differ at the regional level and stakeholder input is successfully

obtained and maintained at the regional level. Sub-grantees at the regional level can be more easily monitored and assisted with post-award management and accountability issues. The RME online results verification system recently was adopted by the USDA RMA as its preferred approach to accountability and outcomes verification. RME and SARE NPL leadership maintain close ties within, between and among the regions and in furtherance, all regional programs have adopted operational guidelines to conform their day-to-day activities. CSREES gains greater visibility at the state and local level through this approach. The new Beginning Farmers and Ranchers Development Program (which will begin in 2009) is required to ensure in regional and geographical diversity and relevancy of program content through regional curriculum teams in a national program.

In addition to coordination regional leadership for delivery of national programs, Unit activities include:

Unit funds will support a nationwide Strategic Planning effort for Farm Financial Management led by the Center for Farm Financial Management (Univ. of MN)

SARE program celebrated its 20th anniversary and continues to redefine and refocus on new priorities and strategic goals

Integration of economics within CSREES competitive grant programs, such as the NRI, is strengthening.

Unit leadership involvement continues in CSREES internal activities including the Social Science Working Group, Science for Sustainability, the Ecosystems Services Working Group, and the Social Science Academy.

NPL leadership is also assisting the Land Grant/Extension Agricultural Law community in launching a Community of Practice for Agricultural Law, and has launched an Agricultural Law Seminar Series, co-hosted in Washington DC by the USDA Economists Group, the Risk Management Agency, C-FARE, CSREES and the National Center for Agricultural Law Research and Information. This multi-issue seminar series has successfully completed five initial seminars by July 2008 and will continue offering monthly seminars on the range of agricultural legal issues faced by producers and landowners. .

- Portfolio Response in 2007:
  It should be noted up front that the preponderance of information regarding the SARE and Regional Rural Development Centers is presented in the Economic and Business Decision-Making Portfolio. Hence the External Evaluation Committee examining the Agricultural Structures and Farm Management Portfolio in July 2004 really had minimal information on which to make judgments as to how these two programs were led and operated.

  Questions related to leadership: In the last 2 years, CSREES has filled the gap of leadership in regards to economics by the appointment of a new Deputy Administrator for the Economic and Community Systems unit, the transfer of an

experienced agricultural marketing NPL into the ECS Unit, and the establishment of an agency-wide social science working group that addresses leadership, management and knowledge voids within the social sciences.

Questions related to outsourcing: CSREES does not regionally "outsource" competitive grant programs unless so directed by the Congress, or if such "outsourcing" makes good sense from political, resource, management and effectiveness standpoints. For both the SARE and Regional Rural Development Programs, the Congress directed that such programs be regional in nature. As a result, these programs have been regional since their establishment by Congress. Hence the programs are not outsourced, but instead are conducted and managed in partnership between the regions and CSREES. The three NPLs involved in these programs provide national leadership and coordination that includes budget oversight, setting program guidelines, publicizing and communicating program successes and outcomes, and convening and facilitating cross-regional communication between and within regions.

In terms of the RME Program, it became partially regionalized as a result of those who diligently worked to gain funding for the program in FY 2000. Between 2000 and 2003, there was an annual competition for each regional center, and in addition, CSREES also ran a competitive program nationally. However, in January 2003, four National Program leaders within the ECS unit retired, and one was transferred from Competitive Programs to ECS to fill in for the retired NPLs. As a result, both professional and support staff were in short supply, and so it made inimitable sense to fully regionalize the RME Program. Additionally, because of personal shortages, money used for a national competition was divided among the four regions and CSREES got out of the business of conducting RME competitive grants program. Further, what was formerly an annual competition was moved to one competition every four years to provide a "planning horizon" for the four regional centers and the Digital Center for Risk Management Education. Each of the four regional RME Centers, as was the case for the SARE regional centers all became "streamlined" either in 2003 or 2004. This meant that not only were the centers responsible for conducting competitive RME programs in each of their respective regions, they also gained the authority to process the awards and funding through their host universities without having to have CSREES process each of their awards. And finally, in 2004, CSREES published operational guidelines to be followed by each of the four regional centers that specified how they were to conduct their competitive programs, guidance that previously did not exist. In February 2007, these guidelines were updated and published on the CSREES Farm Financial Management program page, making them public to all citizens. The process and procedures used by SARE to manage their regional competitive programs are well established using two boards to oversee operations, a technical one and an administrative one. In fiscal year 2007, CSREES successfully hired a new NPL for Farm Financial Management to replace the NPL who provided leadership over the program over the last four years. Therefore, business is proceeding as usual. This hiring was crucial as the beginning of 2007 included the reauthorization of the TAA program, and the competitive grants process that is imperative to maintaining one regional center in all four regions, and a Digital

Center for providing a number of supporting services to the regional Risk Management Education Centers.

Questions related to grants administration: One of the concerns posed by the Committee dealt with the issue as to whether centralized grants administration is more effective than decentralized regional administration. Given the shortfall of personnel within CSREES to manage, process, and fund individual RME projects, having the regions conduct regional (as well as multi-regional, in the case of the RME Program) competitions and then to process the awards is quite effective, equal to if not more effective than if CSREES were conducting the competitions. In addition, by having the regions manage the program; this permits the SARE and RME NPLs to provide much closer oversight and leadership than would otherwise be the case. The regional Rural Development centers conduct a competition that is overseen by a board of directors consisting of representatives from the State Experiment Stations, the Cooperative Extension Service, Higher Education, stakeholders and others. CSREES believes that the manner in which these programs are conducted and overseen make them highly effective.

Questions related to accountability: A second concern was whether CSREES was losing control and accountability of the program. With regard to the all programs, there are specific reporting requirements that must be met and which are being met, otherwise annual funds would not be released until the requirements are met. Each program operates under an established set of guidelines agreed to by CSREES and our partners.
Additionally, each host university is required to provide oversight and accountability just as CSREES is so required to do of their programs. Finally, CSREES has actually gained more control and accountability for the manner in which these programs are managed, which has in fact provided the necessary time for the NPLs to more effectively lead and provide necessary oversight of the programs.

Questions related to coordination among regions: A final concern of the committee questioned whether there was adequate coordination among the regions. The coordination among the regions has never been better or more effective. Monthly conference calls, semi-annual (more if deemed necessary) coordination and management meetings, and individual conversations have resulted in the regions being fully coordinated in each of the three programs being discussed. The Operational Guidelines under which the regional RME centers operate dictate a much more coordinated program than was the case prior to 2003. All said and done, coordination has been significantly improved over the last three years, particularly the Regional Rural Development Centers programs and the RME Program.

In 2005, the Southern Rural Development Center and the Southern SARE Program have embarked on a coordinated, joint funding of mutually supportive projects. Likewise, the
Southern Regional RME Center has been in discussions with the Southern SARE Program to perhaps jointly fund some risk management studies to better understand the perceptions of risk and the adoption of new technologies and practices by producers.

- Portfolio Response 2006:
  It should be noted up front that the preponderance of information regarding the SARE and Regional Rural Development Centers is presented in Portfolio 2.1, which will be evaluated in the January-February timeframe, 2006. Hence the External Evaluation Committee examining Portfolio 1.4 last July 2004 really had minimal information on which to make judgments as to how these two programs were led and operated.

  The leadership issue was noted by the committee in their initial discussions looking at Portfolio 1.2 and in other responses in CSREES internal review of Portfolio 1.2., and will not be repeated here. The CSREES position is that the leadership void in economics has been met with the appointment of the new Deputy Administrator for the Economic and Community Systems unit, the transfer of an experienced agricultural marketing NPL into the ECS Unit, and the establishment of an agency-wide social science working group that addresses leadership, management and knowledge voids within the social sciences.

  CSREES does not regionally "outsource" competitive grant programs unless so directed by the Congress, or if such "outsourcing" makes good sense from political, resource, management and effectiveness standpoints. For both the SARE and Regional Rural Development Programs, the Congress directed that such programs be regional in nature. As a result these programs have been regional since their establishment by the Congress. Hence the programs are not outsourced, but instead are conducted and managed in partnership between the regions and CSREES. The three NPLs involved in these programs provide national leadership and coordination that includes budget oversight, setting program guidelines, publicizing and communicating program successes and outcomes, and convening and facilitating cross-regional communication between and within regions.

  In terms of the RME Program, it became partially regionalized as a result of those who diligently worked to gain funding for the program in FY 2000. Between 2000 and 2003, there was an annual competition for each regional center, and in addition, CSREES also ran a competitive program nationally. However, in January 2003, four National Program leaders within the ECS unit retired, and one was transferred from Competitive Programs to ECS to fill in for the retired NPLs. As a result both professional and support staff were in short supply, and so it made inimitable sense to fully regionalize the RME Program. Additionally, because of personal shortages, money used for a national competition was divided among the four regions and CSREES got out of the business of conducting RME competitive grants program. Further, what was formerly an annual competition was moved to one competition every four years to provide a "planning horizon" for the four regional centers and the Digital Center for Risk Management Education. Each of the four regional RME Centers, as was the case for the SARE regional centers all became "streamlined" either in 2003 or 2004. This meant that not only were the centers responsible for conducting competitive RME programs in each of their respective regions, they also gained the authority to process the awards and funding through their host universities without having to have CSREES process each of their awards. And finally, in 2004 CSREES published operational guidelines to be followed by each of the four regional

centers that specified how they were to conduct their competitive programs, guidance that previously did not exist. The process and procedures used by SARE to manage their regional competitive programs are well established using two boards to oversee operations, a technical one and an administrative one.

One of the concerns posed by the Committee dealt with the issue as to whether centralized grants administration is more effective than decentralized regional administration. Given the shortfall of personnel within CSREES to manage, process, and fund individual RME projects, having the regions conduct regional (as well as multi-regional, in the case of the RME Program) competitions and then to process the awards is quite effective, equal to if not more effective than if CSREES were conducting the competitions. In addition, by having the regions manage the program; this permits the SARE and RME NPLs to provide much closer oversight and leadership than would otherwise be the case. The regional Rural Development centers conduct a competition that is overseen by a board of directors consisting of representatives from the State Experiment Stations, the Cooperative Extension Service, Higher Education, stakeholders and others. CSREES believes that the manner in which these programs are conducted and overseen make them highly effective.

A second concern was whether CSREES was losing control and accountability of the program. With regard to the all programs, there are specific reporting requirements that must be met and which are being met, otherwise annual funds would not be released until the requirements are met. Each program operates under an established set of guidelines agreed to by CSREES and our partners. Additionally, each host university is required to provide oversight and accountability just as CSREES is so required to do of their programs. Finally, CSREES has actually gaining in control and accountability for the manner in which these programs are managed and led has in fact provided the necessary time for the NPLs to more effectively lead and provide necessary oversight of the programs.

A final concern of the committee questioned whether there was adequate coordination among the regions. The answer to this question is that the coordination among the regions has never been better or more effective. Monthly conference calls, semi-annual (more if deemed necessary) coordination and management meetings, and individual conversations have resulted in the regions being fully coordinated in each of the three programs being discussed. The Operational Guidelines under which the regional RME centers operate dictate a much more coordinated program than was the case prior to 2003. All said and done, coordination has been significantly improved over the last two years, particularly the Regional Rural Development Centers programs and the RME Program.

In addition, recently the Southern Rural Development Center and the Southern SARE Program have embarked on a coordinated, joint funding of mutually supportive projects. Likewise, the Southern Regional RME Center is currently in discussions with the Southern SARE Program to perhaps jointly fund some risk management studies to better understand the perceptions of risk and the adoption of new technologies and practices by producers.

Accountability
Panel Recommendation:

- Much of the evidence had to be teased out by an NPL, rather than being part of a readily accessible database.
- Need to generate better information about the impact of CSREES programs so it can be communicated to stakeholders.
- Improve reporting of outputs and impacts via scholarly and stakeholder-oriented communication channels.
- Report outputs and impacts according to criteria established by CSREES for meeting OMB requirements; provide a template for reporting.
- Implement post award-evaluation process.
- Include extension and teaching in the reporting and documentation system along with research.

- Portfolio Response in 2008:
  The CRIS database is migrating to a different platform, and this will require a change in the search engine. All search interfaces to records in the database will change. These include all direct accesses through the web site (Assisted, Professional, Pending, Administrative), as well as all "indirect" accesses through "Fast links." These are hyperlinks to one or more records in the CRIS database that may be added to any web page, email, word processing document, spreadsheet, PDF file, etc.

  Significant progress has been made improving the reporting of outputs, outcomes and impacts. Attribution of funding is a priority. Updates to the CRIS reporting system include more inclusive reporting of scholarly outputs beyond serial publications (journal articles) and books; this substantially increases the opportunity to report teaching and extension outputs. Improved review and oversight of CRIS and Plan of Work reports has been accomplished. This has resulted in the refocus of project efforts and in some cases the termination of products with limited productivity.

  CSREES is refining post-award management processes and procedures, along with development of Customer Service Standards and new NPL Guidelines for Reviewing Hatch, McIntire-Stennis, Evans-Allen, and Animal Health and Disease Proposals.

  Project Directors meetings are a required component of competitive funding, and PIs are expected to include sufficient funding in their proposed budgets, and to attend such meetings as scheduled throughout the effective life of their funded projects.

- Portfolio Response in 2007:
  The CSREES One Solution Initiative began in May of 2005. It is designed to increase the quality and completeness of reports to OMB, Congress, and the public. One Solution aligns the budget with performance outcomes in the research, education, and extension areas. The system is being developed to allow for streamlined reporting requirements. The 2007-2011 Plans of Work (POW) for Research and Extension formula funds were entered via electronic, HTML-based forms pre-populated with CSREES-known information about each project. The system also utilizes pop-up help

screens to facilitate clarification of data entry. Automatic e-mail notifications alert national program staff and project directors to submit and review reports.

The advent of the One Solution system and its integration with the migration of the Current Research Information System (CRIS) is laying the foundation for ease of reporting and reviewing reports and impact information from funded projects. The system will eliminate much of the "teasing out" of information necessary in the past by soliciting and retaining pertinent project information in a readily accessible database. The system will further enable the reporting of outputs and impacts to stakeholders by requesting the information in a standardized template.

While One Solution is not finalized and complete at this time, early pilot testing results have been favorable and predict that One Solution will facilitate CSREES contributions to increased public accountability and quality government reporting for all three areas of research, education, and extension.

- Portfolio Response 2006:
  Much of this issue was addressed in section II. However it should be noted here that several logic models were created to fall in line with the CSREES initiative encouraging the development of these instruments.

Section V: Self-Assessment

Portfolio Scoring

Criteria		External Panel Score	Self Score	Self Score	Self Score
Dimensions	Sub-dimensions	2004	2006	2007	2008
1. Relevance	1.1 Scope	2		2.5	2.5
	1.2 Focus	2		2	2.5
	1.3 Emerging Issues	2		2.5	2.5
	1.4 Integration	3		2	2.5
	1.5 Multi-disciplinary	1		2	2.5
2. Quality	2.1 Significance of Findings	3		2	2.5
	2.2 Stakeholder Assessment	3		3	3.0
	2.3 Alignment with Current Science	2		2.5	2.5
	2.4 Appropriate Methodology	2		2	2.5
3. Performance	3.1 Productivity	2		3	3
	3.2 Completeness and Comprehensiveness	2		3	2.5
	3.3 Timeliness	2		2	2.5
	3.4 Guidance	2		2.5	2.5
	3.5 Accountability	2		2.5	2.5
	***Overall Score**	***73***		***84***	***86***

* The overall score is based on weighted calculations

2008 Portfolio Score Change Discussion:
By realigning the KAs (primary and secondary) and Key Programs and renaming this portfolio in ways to capture the vision and intention, not only of the work captured within the portfolio, but the evolving efforts around improved farm management and increased attention to sustainability, this portfolio is now situated to capture increased momentum and focus. The immediate impact of realignment and refinement of mission are reflected in the improvement in overall score for 2008.

Relevance:

- Scope: Remained unchanged from 2.5 to 2.5
  Justification: The RME and TAA programs are maintaining their focus while refining grant administration and targeted outcomes refinement; the SARE programs passed a 20th anniversary milestone and are re-examine priorities for the next 20 years; the AgrAbility program is solidly reaching its targets. With the additions of new primary, secondary and Key Programs to the portfolio, future improvements can

be anticipated, but for now, the portfolio leadership believes that focusing portfolio programs on improvement of farm sustainability, viability, management and quality of life is solid and will improve with this improved focus.

- Focus: Increased from 2.0 to 2.5
  Justification: RME, SARE, AgrAbility and the NRI/SBIR program areas, Small Farms, 2501 and now Beginning Farmers and Ranchers areas are all continually increasing focus through funded projects on the critical factors needed to ensure farm management for financial security, risk management and sustainability. By collapsing these critical interrelated leadership areas into this portfolio, NPLs will be better equipped to lead from a position of coordinated management across the system and assist CSREES partners in finding ways for additional collaboration for the benefit of farmers and ranchers.

- Emerging Issues: Remained unchanged from 2.5 to 2.5
  Justification: In many ways, the emerging issues facing producers remain the same: ensuring sustainability while improving productivity and ability to remain viable business enterprises. Farm transition is an emerging issue which cuts across funded programs in each of the areas of the portfolio as is addressing the emerging ecosystems services market. Biofuels participation and energy assessment on the farm are seen as additional emerging issues. As the synergies of the portfolio are realized, additional improvement in identifying and addressing emerging issues will become more evident.

- Integration: Increased from 2.0 to 2.5
  Justification: By merging the key areas, primary and secondary KAs identified in this portfolio, further integration of the research, education and extension functions of CSREES and its partners will be realized. This synergy is already evident in the seating of a leadership team from those involved in this portfolio to craft and deliver the new Beginning Farmers and Ranchers Development Program. Integration of specifically funded programs at the regional level will continue to emerge.

- Multi-disciplinary: Increased from 2.0 to 2.5
  Justification: SARE and RME areas many times incorporate, within funded projects, highly multi-disciplinary teams of professionals within the CSREES partnership. These teams can include horticulturalists, economists, management specialists, engineers and others. Multi-disciplinary teams are also incorporated into NRI and SBIR projects as well as those funded under the Farm Safety and 2501 programs. Understanding the interplay between farm management, viability and the effect of farming practices on the physical environment is a strong suit of this portfolio and future improvements in multi-disciplinary, whole systems research are anticipated from this portfolio.

Quality

- Significance: Increased from 2.0 to 2.5
  Justification: Sustainability is now seen as the hallmark of a successful operation, both in terms of short, mid- and long-term financial sustainability but also in terms of the sustainability of the ecological and environmental, natural systems within which

the farm or ranch exists. Beginning farmers and ranchers are becoming the focus of efforts throughout USDA in order to secure the future for U.S. agriculture. Determining the ways in which the individual family or small/mid-sized farming operation can improve its energy footprint while ensuring profitability will be key to success; while accessing new and evolving markets through diversified production will be critical. These issues highlight the significance of the relevant program areas encompassed within this portfolio and by realignment; improvements in significance of the work represented by this portfolio will continue to show improvement over time.

- Stakeholder: Remained unchanged from 3.0 to 3.0
  Justification: All programs involved within this portfolio have a high degree of maintained stakeholder contact. Regionally based programs reflected through RME and SARE regularly incorporate stakeholder input sessions at the regional/local level into priority setting for RFAs. The Small Farm and 2501 programs are significantly engaged with those stakeholders affected by the work supported in those programs. The same holds true for the NRI and SBIR programs focusing on Small to Mid-Sized farming operations.

- Alignment: Remained unchanged from 2.5 to 2.5
  Justification: While the portfolio realignment occurring in 2008 is a significant event that will lead to further coordination across programs affected, the true effects of this realignment will not be felt until 2009 and beyond. Therefore, showing an "unchanged" score at this time was deemed appropriate. Portfolio leadership anticipate further improvements in alignment of program areas at the regional and local, and even project level, will be the fruit of realignment at the national level.

- Methodology: Increased from 2.0 to 2.5
  Justification: All projects funded through this portfolio are subject to rigorous evaluations. Projects funded through the regional centers go through the same rigorous process used by CSREES at its headquarters. Those regional centers developed systems through which proposals are evaluated prior to funding. They adhere to the same rigor used by CSREES review process.

Performance

- Productivity: Remained unchanged from 3.0 to 3.0
  Justification: RME has funded over 666 projects in just over five years; SARE has funded over 3000 projects in its lifetime. Many projects funded through these programs are small in size, but large in potential impact throughout the region. Productivity remains high for all areas of the portfolio represented.

- Comprehensiveness: Decreased from 3.0 to 2.5
  Justification: While productivity and integration are important areas which will show improvement by the realigned portfolio and its related programs, the areas identified within this portfolio will need to continue improvements in the comprehensiveness of program work. Several programs, such as RME, provide small project funds and as such cannot usually take a comprehensive approach to a specific risk management area. In order to capture improvements in program comprehensiveness, it will be

necessary for this realigned portfolio to deliberately capture and implement the synergies represented by the various programs contained in the portfolio. Hence, the team determined that in 2008, comprehensiveness was not optimal, but instead would improve overall time with portfolio realignment.

- Timeliness: Increased from 2.0 to 2.5
  Justification: The programs highlighted in review reflect the timeliness of response to changes in producer circumstances. For instance, the TAA program specifically addresses the needs of producers who are faced with increasing import impacts. By readjusting business plans and exploring diversification, producers can make timely changes in their enterprises and take steps to ensure long-term viability of their enterprise. Markets change, sometimes rapidly in response to food safety or energy issues. By teaching the skills necessary for producers to predict, analyze and implement plans in response to changes, sustainability and viability will be improved.

- Agency guidance: Remained unchanged from 2.5 to 2.5
  Justification: RME and SARE leadership, as well as leaders of Farm Safety and the Key Program and Secondary KAs represented in this portfolio are very involved in the programs funded through this portfolio. Leadership attend as many regional and professional meetings as time and funds will allow and are engaged through webinars and frequent conferencing techniques, in order to maintain as high a degree of guidance and communication as is possible in national programs.

- Accountability: Remained unchanged from 2.5 to 2.5
  Justification: The RME program, through its results verification system, continues to fine-tune issues of accountability, achievement of targeted outcomes and results verification. The SARE program, through its grantee coordination efforts and online display of project results, likewise continues to refine its accountability for program funds. All program areas highlighted within the portfolio can continue to work with grantees in enhancement of post-project award. The RME program provides annual orientation to results verification and accountability to grantees and potential grantees. Continued attention to this component will show improvement over time.
-

<u>2007 Portfolio Score Change Discussion:</u>

Relevance:

- Scope: increased from 2 to 2.5
  <u>Justification</u>: The Risk Management Education and TAA programs are now firmly established in every region, with annual streamlined grant opportunities made available for subgrantees to focus on needs specific to their region or state. The RME and TAA programs have a broad national scope even though the program content is delivered at the state and regional level, which is appropriate given the vast differences in farming and ranching from place to place.

- Emerging issues: increased from 2 to 2.5
  <u>Justification</u>: The competing demands between the growing Ethanol and Bio-Fuels industries have been the subject of recent RME analysis and efforts as have the

growing numbers of women farmers in the United States. These two areas – shifts in resource allocation and shifts in demographics – are but two of the emerging issues the RME program is addressing at a national level and within the regions.

- Integration: decreased from 3 to 2.5
  Justification: Reconfiguration aspects of the KA relating to this portfolio caused an initial dissipation of some integrated results. However, under the newly reconfigured portfolio, confidence is high that program integration will rebound. The RME and TAA programs, in and of themselves, are highly integrated at the regional level as the centers located regionally that handle risk management education efforts also prepare and deliver technical assistance under the TAA program. Further integration of farm safety will occur as the newly reconfigured portfolio matures, as the recognition that farm injuries can and does in most cases severely impact the ability of the farm to be properly managed, at least in the short term. By seeking additional opportunities to integrate farm safety with farm financial management and risk management, the overall fiscal picture of the farm can improve. With the removal of agricultural engineering from this portfolio, the portfolio became heavier in extension-related activities.

- Multidisciplinary: increased from 1 to 2
  Justification: The RME program is adding a new emphasis on legal issues and the proper planning for legal and regulatory concerns within the farm environment. This amplification of legal issues is a new effort and is being done in a fully integrated fashion among all four regional RME centers.

Quality

- Significance: decreased from 3 to 2
  Justification: With reconfiguration of the portfolio and removal of many aspects of agricultural engineering from the portfolio, a slight decline in significance of the overall portfolio was appropriate. RME and TAA, as well as the efforts of the farm safety programs, through AgrAbility and other ongoing efforts, are significant to the overall health, welfare and viability of the farming enterprise. TAA is being considered for reauthorization by Congress during 2007 and should it be reauthorized, the mandatory and intensive technical assistance provided through that program will assist in increasing the overall significance of the portfolio to the farming community. Risk management education is of course key to the fiscal and financial health of the farming enterprise, but the loss of agricultural engineering – which is a key need of the farming community – from the portfolio was a significant enough event to require a slight decline in the portfolio for this component. Reconfiguration of the portfolio has resulted in a less broad portfolio mix.

- Alignment: increased from 2 to 2.5
  Justification: RME, TAA and the Farm Safety program efforts are in total alignment with USDA and CSREES' Strategic Goals as captured in Strategic Objective 2. TAA and RME are primary components of the remaining KAs in this portfolio and are directly related to Strategic Objective 2.

Performance

- Productivity: increased from 2 to 3
  Justification: The RME program has a strong record of generating outcome tracking information. This is accomplished through the results verification system utilized throughout the streamlined grants award and reporting process in place for all RME funds. Projects are tracked throughout the life of the project by the Digital Center for Risk Management Education and all results are reported to CSREES and back into the RME leadership for further program analysis and modification.

- Comprehensiveness: increased from 2 to 3
  Justification: A broad spectrum of issues is funded every year through the RME centers, these including projects related to: marketing, financial analysis of the farm, recordkeeping, benchmarking of farming operations, analysis of legal and regulatory issues facing the farm, and other key subject areas that will improve the overall financial management of the farming operation and its ability to manage for risk. The TAA program, through delivery of mandatory and intensive technical assistance, is comprehensive in its program subject delivery; however, the delivery of this information is triggered by applications for TAA filed by farmers and fishermen affected by imports and thus, while the content of technical assistance delivery is comprehensive in nature, the overall program is triggered by producer selection to petition for coverage.

- Agency guidance: increased from 2 to 2.5
  Justification: The RME and TAA programs received new National Program leadership with the hiring of a new NPL whose background is in the field of agricultural law. This individual brought increased diversity to the overall portfolio as well as new initiatives to strengthen guidance from the agency to the streamlined programs.

- Accountability: increased from 2 to 2.5
  Justification: The RME program endorsed and adopted a comprehensive Operations Guide in 2007 for the governance of all program delivery as well as to ensure consistency in program delivery. In addition, the TAA program has a draft of a similar TAA Operations Guide underway that, should the TAA program be reauthorized in 2007, will be adopted to govern the program content, delivery and consistency of TAA at the regional and nationwide level.

Appendix A – External Panel Recommendations to the Agency:

In response to directives from the Office of Management and Budget (OMB) of the President, CSREES implemented the Portfolio Review Expert Panel (PREP) process to systematically review its progress in achieving its mission. Since this process began in 2003, fourteen expert review panels have been convened and each has published a report offering recommendations and guidance. These external reviews occur on a rolling five-year basis. In the four off years an internal panel is assembled to examine how well CSREES is addressing the expert panel's recommendations. These internal reports are crafted to specifically address the issues raised for a particular portfolio; however, despite the fact that the expert reports were all written independent of one another on portfolios comprised of very different subject matter, several themes common to the set of review reports have emerged. This set of issues has repeatedly been identified by expert panels and requires an agency-wide response. The agency has taken a series of steps to effectively respond to those overarching issues.

Issue 1: Getting Credit When Credit is Due

For the most part panelists were complimentary when examples showing partnerships and leveraging of funds were used. However, panelists saw a strong need for CSREES to better assert itself and its name into the reporting process. Panelists believed that principal investigators who conduct the research, education and extension activities funded by CSREES often do not highlight the contributions made by CSREES. Multiple panel reports suggested CSREES better monitor reports of its funding and ensure that the agency is properly credited. Many panelists were unaware of the breadth of CSREES activities and believe their lack of knowledge is partly a result of CSREES not receiving credit in publications and other material made possible by CSREES funding.

Issue 1: Agency Response:

To address the issue of lack of credit being given to CSREES for funded projects, the Agency implemented several efforts likely to improve this situation in 2005.

First it developed a standard paragraph about CSREES' work and funding that project managers can easily insert into documents, papers and other material funded in part or entirely by CSREES.

Second, the Agency is in the process of implementing the "One Solution" concept. One Solution will allow for the better integration, reporting and publication of CSREES material on the web. In addition, the new Plan of Work (POW), centered a logic model framework, became operational in June 2006. The logic model framework is discussed in more detail below. Because of the new POW requirements and the POW training conducted by the Office of Planning and Accountability (also described in more detail below), it will be simpler for state and local partners to line up the work they are doing with agency expenditures. This in turn will make it easier for project managers to cite CSREES contributions when appropriate.

Issue 2: Partnership with Universities

Panelists felt that the concept of partnership was not being adequately presented. Panelists saw a need for more detail to be made available. Questions revolving around

long-term planning between the entities were common as were ones that asked how the CSREES mission and goals were being supported through its partnership with universities and vice versa.

Issue 2: Agency Response:
CSREES has taken several steps to strengthen its relationship with university partners. First, to the extent possible, implementing partners will be attending the CSREES strategic development exercise which is intended to help partners and CSREES fully align what is done at the local level. Second, CSREES has realigned the state assignments for its National Program Leaders (NPLs). Each state is now assigned to one specific NPL. By reducing the number of states on which any individual NPL is asked to concentrate and assigning and training NPLs for this duty, better communication between state and NPLs should occur.

Finally, several trainings that focused on the POW were conducted by CSREES in geographic regions throughout the country. A major goal of this training was to better communicate CSREES goals to state leaders which will facilitate better planning between the universities and CSREES.

Issue 3: National Program Leaders
Without exception the portfolio review panels were complimentary of the work being done by NPLs. They believe NPLs have significant responsibility, are experts in the field and do a difficult job admirably. Understanding the specific job functions of NPLs was something that helped panelists in the review process. Panelists did however mention that often times there are gaps in the assignments given to NPLs. Those gaps leave holes in programmatic coverage.

Issue 3: Agency Response:
CSREES values the substantive expertise that NPLs bring to the Agency and therefore requires all NPLs to be experts in their respective fields. Given the budget constraints often times faced by the agency, the agency has not always been able to fund needed positions and had to prioritize its hiring for open positions. In addition, because of the level of expertise CSREES requires of its NPLs, quick hires are not always possible. Often, CSREES is unable to meet the salary demands of those it wishes to hire. It is essential that position gaps not only be filled but that they are filled with the most qualified candidates.

Operating under these constraints and given inevitable staff turnover, gaps will always remain. However, establishing and drawing together multidisciplinary teams required to complete the portfolio reviews has allowed the Agency to identify gaps in program knowledge and ensure that these needs are addressed in a timely fashion. To the extent that specific gaps are mentioned by the expert panels, the urgency to fill them is heightened.

Issue 4: Integration
Lack of integration has been highlighted throughout the panel reviews. While review panelists certainly noted in their reports where they observed instances of integration, almost without fail panel reports sought more documentation in this regard.

Issue 4: Agency Response:
Complex problems require creative and integrated approaches that cut across disciplines and knowledge areas. CSREES has recognized the need for these approaches and has undertaken steps to remedy this situation. CSREES has recently mandated that up to twenty percent of all NRI funds be put aside specifically for integrated projects. These projects cut across functions as well as disciplines and ensure that future Agency work will be better integrated. Finally, integration is advanced through the portfolio process which requires cooperation across units and programmatic areas.

Issue 5: Extension
While most panels seemed satisfied at the level of discussion that focused on research, the same does not hold true for extension. There was a call for more detail and more outcome examples based upon extension activities. There was a consistent request for more detail regarding not just the activities undertaken by extension but documentation of specific results these activities achieved.

Issue 5: Agency Response:
Outcomes that come about as a result of extension are, by the very nature of the work, more difficult to document than the outcomes of a research project. CSREES has recently shuffled its strategy of assigning NPLs to serve as liaisons for states. In the past, one NPL might serve as a liaison to several states or a region comprised of states. Each state will be assigned a specific NPL and no NPL will serve as the lead representative to more than one state. This will ensure more attention is paid to extension activities.

In addition CSREES also has been in discussion with partners and they have pledged to do their best to address this issue. The new POW will make extension-based results and reporting a priority. Placing heavy emphasis on logic models by CSREES will have the effect of necessitating the inclusion of extension activities into the state's POWs. This, in turn, will require more reporting on extension activities and allow for improved documentation of extension impact.

Issue 6: Program Evaluation
Panelists were complimentary in that they saw the creation of the Office of Planning and Accountability and portfolio reviews as being the first steps towards more encompassing program evaluation work; however, they emphasized the need to see outcomes and often stated that the scores they gave were partially the result of their own personal experiences rather than specific program outcomes documented in the portfolios. In other words, they know first hand that CSREES is having an impact but would like to see more systematic and comprehensive documentation of this impact in the reports.

Issue 6: Agency Response:
The effective management of programs is at the heart of the work conducted at CSREES and program evaluation is an essential component of effective management. In 2003 the PREP process and subsequent internal reviews were implemented. Over the past three years fourteen portfolios have been reviewed by expert panel members and each year this process improves. NPLs are now familiar with the process and the staff of the Planning

and Accountability unit has implemented a systematic process for pulling together the material required for these reports.

Simply managing the process more effectively is not sufficient for raising the level of program evaluations being done on CSREES funded projects to the highest standard. Good program evaluation is a process that requires constant attention by all stakeholders and the agency has focused on building the skill sets of stakeholders in the area of program evaluation. The Office of Planning and Accountability has conducted training in the area of evaluation for both NPLs and for staff working at Land-Grant universities. This training is available electronically and the Office of Planning and Accountability will be working with NPLs to deliver training to those in the field.

The Office of Planning and Accountability is working more closely with individual programs to ensure successful evaluations are developed, implemented and the data analyzed. Senior leadership at CSREES has begun to embrace program evaluation and over the coming years CSREES expects to see state leaders and project directors more effectively report on the outcomes of their programs as they begin to implement more rigorous program evaluation. The new POW system ensures data needed for good program evaluation will be available in the future.

Issue 7: Logic Models

Panelists were consistently impressed with the logic models and the range of their potential applications. They expressed the desire to see the logic model process used by all projects funded by CSREES and hoped not only would NPLs continue to use them in their work but, also, that those conducting the research and implementing extension activities would begin to incorporate them into their work plans.

Issue 7: Agency Response:

Logic models have become a staple of the work being done at CSREES and the Agency has been proactive in promoting the use of logic models to its state partners. Two recent initiatives highlight this. First, in 2005, the POW reporting system into which states submit descriptions of their accomplishments was completely revamped. The new reporting system now closely matches the logic models being used in portfolio reports. Beginning in fiscal year 2007, states will be required to enter all of the following components of a standard logic model. These components include describing the following:

- Program Situation
- Program Assumption
- Program Long Term Goals
- Program Inputs which include both monetary and staffing
- Program Output which include such things as patents
- Short Term Outcome Goals
- Medium Term Outcome Goals
- Long Term Outcome Goals
- External Factors
- Target Audience

The system is now operational and states were required to begin using it by June of 2006. By requiring the inclusion of the data components listed above states are in essence, creating a logic model that CSREES believes will help improve both program management and outcome reporting.

The second recent initiative by CSREES regarding logic models concerns a set of training sessions conducted by Planning and Accountability staff. In October and November of 2005 four separate training sessions were held in Monterrey, California, Lincoln, Nebraska, Washington D.C. and Charleston, South Carolina. More than 200 people representing land-grant universities attended these sessions where they were given training in logic model creation, program planning, and evaluation. In addition, two training sessions were provided to NPLs in December 2005 and January 2006 to further familiarize them with the logic model process. Ultimately it is hoped these representatives will pass on to others in the Land-Grant system what they learned about logic models thus creating a network of individuals utilizing the same general approach to strategic planning. These materials also have been made available to the public on the CSREES website.

Appendix B - Detailed Funding Tables for Primary KAs – CSREES Funding:

CSREES Research and Extension Funding for Knowledge Area 601: Economics of Agricultural Production and Farm Management						
(as reported in the Current Research Information System)						
($ in the thousands)						
Funding Sources	**FY 2002**	**FY 2003**	**FY 2004**	**FY 2005**	**FY 2006**	**Grand Total**
Hatch	1,753	2,031	1,927	2,049	2,741	10,501
McIntire-Stennis	30	25	23	15	22	115
Evans Allen	1,089	1,076	927	670	599	4,361
Animal Health	0	1	2	2	3	8
Special Grants	1,755	1,697	2,307	2,016	1,627	9,402
NRI Grants	221	617	185	1,264	870	3,157
SBIR Grants	0	81	0	0	199	280
Other CSREES	639	667	1,294	1,602	1,757	5,959
Smith-Lever 3(b) and (c)	n/a	n/a	n/a	n/a	n/a	n/a
Smith-Lever 3(d)	n/a	n/a	n/a	n/a	n/a	n/a
1890 Extension	n/a	n/a	n/a	n/a	n/a	n/a
Higher Education	n/a	n/a	n/a	n/a	n/a	n/a
Total	5,487	6,195	6,665	7,618	7,818	33,783

CSREES Research and Extension Funding for Knowledge Area 723: Hazards to Human Health and Safety						
(as reported in the Current Research Information System)						
($ in the thousands)						
Funding Sources	**FY 2002**	**FY 2003**	**FY 2004**	**FY 2005**	**FY 2006**	**Grand Total**
Hatch	1,059	1,200	1,143	1,262	1,394	6,058
McIntire-Stennis	17	16	4	17	10	64
Evans Allen	440	369	154	131	178	1,272
Animal Health	1	1	3	11	0	16
Special Grants	760	922	342	437	468	2,929
NRI Grants	390	82	580	346	342	1,740
SBIR Grants	0	59	371	46	376	852
Other CSREES	816	1,072	502	2,046	4,302	8,738
Smith-Lever 3(b) and (c)	n/a	n/a	n/a	n/a	n/a	n/a
Smith-Lever 3(d)	n/a	n/a	n/a	n/a	n/a	n/a
1890 Extension	n/a	n/a	n/a	n/a	n/a	n/a
Higher Education	n/a	n/a	n/a	n/a	n/a	n/a
Total	3,483	3,721	3,099	4,296	7,070	21,669

KA 902: Administration of Projects and Programs CSREES Funding						
(as reported in the Current Research Information System)						
$ in the thousands						
Funding Sources	**FY 2002**	**FY 2003**	**FY 2004**	**FY 2005**	**FY 2006**	**Grand Total**
Hatch	294	224	307	371	425	1,621
McIntire-Stennis	22	14	23	21	13	93
Evans Allen	0	0	413	707	180	1,300
Animal Health	0	0	0	0	2	2
Special Grants	813	867	1,027	1,132	1,555	5,394
NRI Grants	6	1	395	0	0	402
SBIR Grants	0	0	0	0	0	0
Other CSREES	11,008	12,868	11,038	13,576	15,658	64,148
Smith-Lever 3(b) and (c)	n/a	n/a	n/a	n/a	n/a	n/a
Smith-Lever 3(d)	n/a	n/a	n/a	n/a	n/a	n/a
1890 Extension	n/a	n/a	n/a	n/a	n/a	n/a
Higher Education	n/a	n/a	n/a	n/a	n/a	n/a
Total	12,142	13,974	13,203	15,807	17,832	72,958

Appendix C - Detailed Funding Tables for Primary KAs – All Known Funding:

Overall Research and Extension Funding for Knowledge Area 601: Economics of Agricultural Production and Farm Management						
(as reported in the Current Research Information System)						
($ in the thousands)						
Funding Sources	**FY 2002**	**FY 2003**	**FY 2004**	**FY 2005**	**FY 2006**	**Grand Total**
CSREES	5,487	6,196	6,665	7,618	7,818	33,784
Other USDA	979	1,005	1,147	1,945	2,238	7,314
Other Federal	756	943	873	3,134	2,302	8,008
State Appropriations	8,742	8,702	9,535	11,781	10,648	49,408
Private or Self Generated	589	612	709	1,087	894	3,891
Industry Grants and Agreements	703	880	888	1,246	602	4,319
Other non-Federal	414	897	831	2,185	1,247	5,574
Total	17,671	19,235	20,649	28,996	25,749	112,300

Overall Research and Extension Funding for Knowledge Area 723: Hazards to Human Health and Safety						
(as reported in the Current Research Information System)						
($ in the thousands)						
Funding Sources	**FY 2002**	**FY 2003**	**FY 2004**	**FY 2005**	**FY 2006**	**Grand Total**
CSREES	3,482	3,721	3,100	4,296	7,070	21,669
Other USDA	320	588	529	336	225	1,998
Other Federal	3,931	7,515	9,389	28,179	10,632	59,646
State Appropriations	6,377	7,606	7,975	12,104	9,414	43,476
Private or Self Generated	520	789	859	849	1,292	4,309
Industry Grants and Agreements	1,279	1,362	1,444	4,281	2,074	10,440
Other non-Federal	1,045	980	648	2,230	839	5,742
Total	16,954	22,560	23,945	52,276	31,547	147,282

KA 902: Administration of Projects and Programs Overall Funding (as reported by the Current Research Information System) $ in the thousands						
Funding Source	**FY 2002**	**FY 2003**	**FY 2004**	**FY 2005**	**FY 2006**	**Grand Total**
CSREES	12,142	13,974	13,203	15,807	17,832	72,958
Other USDA	1,346	1,007	245	314	34	2,946
Other Federal	1,355	183	182	415	26	2,161
State Appropriations	2,322	513	663	2,294	1,498	7,290
Private or Self Generated	54	70	114	182	198	618
Industry Grants and Agreements	83	111	47	121	661	1,023
Other non-Federal	57	146	12	149	585	949
Total	17,360	16,005	14,467	19,282	20,833	87,947

Appendix D - List of Supporting Programs:

Key Programs Related to Portfolio: Farm Management for Sustainability	
Name of Related Program	**Description of Relationship**
NRI 66.0 – Agricultural Prosperity for Small and Medium Sized Farms	Purpose of this program is to foster interdisciplinary studies to improve our understanding of the interactions between the economic and environmental components important to the long-term viability, competitiveness and efficiency of small and medium-sized farms (including social, biological and other components, if necessary). While small and medium-sized farms account for less than 25% of the value of all agricultural products sold in the U.S., the long-term viability of these farms is critical to the prosperity of rural people and places as these farms account for approximately 92% of all farms in the U.S. Range of awards: up to $500,000
SBIR Agricultural Prosperity for Small and Medium-Sized Farms	Focus is on the development of new technologies and information that will help improve the viability and profitability of small and mid-size farms and ranches. Emphasis is placed on 1) developing new agricultural enterprises that are focused on specialty farm products, both plant and animal, and how to market these products; 2) development of new management tools to enhance the efficiency and profitability of small farms; 3) development of farming methods appropriately scaled to small farms that are directed at more efficient use of natural resources, and 4) development of new educational tools to ensure that small farmers have the I information they need to operate their farms on a sustainable and profitable basis. Range: $80,000 to $350,000
2501: Outreach to Socially Disadvantaged Farmers and Ranchers	The Outreach and Assistance for Socially Disadvantaged Farmers and Ranchers Competitive Grants Program (OASDFR) provides funds to organizations to conduct outreach and technical assistance to encourage and assist socially disadvantaged farmers and ranchers to own and operate farms and ranches and to participate in agricultural programs. The OASDFR will support a wide range of outreach and assistance activities in farm management, financial management, marketing, application and bidding procedures, and other areas. The primary purpose of the OASDFR is to deliver outreach and technical assistance, to assure opportunities for socially disadvantaged farmers and ranchers to successfully acquire, own, operate, and retain farms and ranches; and assure equitable participation in the full range of USDA programs.
Beginning Farmers & Ranchers	Half of all current farmers in the U.S. are likely to retire in the next decade. Enlisting and supporting new farmers is essential to the future of family farms, the farm economy and healthy rural communities. The Farm Service Agency defines BFR as an individual or entity who: 1. has not operated a farm or ranch for more than 10 years; 2. meets the loan eligibility requirements of the program to which he/she is applying; 3. substantially participates in the operation; and, 4. for Farm Operating loan purposes, does not own a farm greater than 30 percent of the average size farm in the county. If the applicant is an entity, all members must be related by blood or marriage, and all

	stockholders in a corporation must be eligible beginning farmers. (FSA) Natural Resources Conservation Services defines BFR as an individual or entity who: has not operated a farm or ranch or has not operated a farm or ranch for more than 10 consecutive years. Beginning in 2008, CSREES was delegated leadership and authority for the Beginning Farmers and Ranchers Development Program, a new program designed to address needs of new and beginning farmers. This program is an $18M program for 2009 and $19M annually thereafter in mandatory funds. CSREES assumed leadership and is on schedule to publish the first RFA for program funding in early 2009. NPLs in leadership in the Farm Management for Sustainability portfolio are leading the new BFRDP leadership team and future portfolio discussions will continue to focus on this new program.
The Agricultural Prosperity for Small and Medium-Sized Farms Program	The Agricultural Prosperity for Small and Medium-Sized Farms program investigates how economic and environmental interactions affect the competitiveness, efficiency, and long-term viability of small and medium-sized farms and ranches. Successful proposals include social, biological, and other disciplinary approaches, and combine at least two of the three components of the agricultural knowledge system (research, education, and extension) to transfer new technology and knowledge into practical applications for adoption. The 2008 program will support projects that focus on: • education and extension programs focused on the economic and environmental integration of on-farm agricultural production and soil and water conservation practices. • enhancing the net economic, environmental and social benefits of on- and off-farm agricultural business activities, including impacts of innovative marketing and regional food systems, off-farm employment, migrant labor, etc. how land use change, farm transition, and farm entry issues affect the prosperity of small and medium-sized farms, the ecosystem, and rural prosperity.
AgrAbility	AgrAbility is a consumer-driven USDA-funded program that provides vital education, assistance, and support to farmers and ranchers with disabilities. Through the combined dedication and expertise of the Cooperative Extension System and nonprofit disability organizations, AgrAbility helps thousands of determined individuals overcome the barriers to continuing their chosen professions in agriculture. AgrAbility received its first federal funding in 1991 and was implemented as recommended in the 1990 Farm Bill. Each year, competitive projects have been awarded to Cooperative Extension Services that have joined with nonprofit disability organizations to educate and assist agricultural workers with disabilities and their families. In addition to the state project grants, one national grant provides additional support for a National AgrAbility Project involving the University of Wisconsin-Madison and the Easter Seals, Inc. These national partners joined to provide technical assistance and

	professional training for the state projects and to produce resource materials and conduct information dissemination activities related to the project. The activities of the AgrAbility program demonstrate the ability of Extension Services to respond to local needs and make a difference through collaborative partnerships. Perhaps most important, they illustrate how much we can collectively benefit by providing opportunities, expanding boundaries, and making it possible for people to hope. AgrAbility program services are provided through state projects and the Na National AgrAbility Project at the University of Wisconsin-Madison. Farmers, ranchers, farm workers, or their family members engaged in a farm-related occupation and who have a disability may contact their state AgrAbility director or Web site for information on what services are available. If no state AgrAbility project is available, contact the National AgrAbility Project for information.
The Youth Farm Safety Education and Certification Program (YFSEC)	The Youth Farm Safety Education and Certification Program (YFSEC) supports national efforts to deliver timely, pertinent, and appropriate training to youth seeking employment or already employed in agricultural production. The program has critical ties to the current regulations for youth employment in agriculture, especially the exemptions provided in 29 CFR Part 570, subpart E-1 for youth under the age of 16 employed in some agricultural occupations having obtained certification. Significant changes in agricultural production and in the agricultural workforce since this regulation took effect in the early 1970's have encouraged the USDA to consider training and certification innovations along with developing appropriate training and restrictions on youth employment in hazardous agricultural jobs. YFSEC's funding has appeared under the Smith-Lever 3 (d) line for Youth Farm Safety Education and Certification since 2001 and has awarded nearly $1.43 million in grants.

Appendix E - Partnering Agencies and Other Organizations:

Portfolio: Farm Management for Sustainability Partnering Agencies and Organizations	
Name of Program	**Agency Type**
Risk Management Agency	USDA Agency
Farm Service Agency	USDA Agency
Natural Resources Conservation Agency	USDA Agency
Economic Research Service	USDA Agency
National Agricultural Statistical Service	USDA Agency
Department of Commerce	Non-USDA Federal Agency
Small Business Administration	Non-USDA Federal Agency
Internal Revenue Service	Non-USDA Federal Agency
Department of Defense	Non-USDA Federal Agency
America On The Move Foundation	Non Federal Organization
American Farm Bureau Federation & state organizations	Non Federal Organization
American Bar Association	Non Federal Organization
American Agricultural Economics Association	Non Federal Organization
American Agricultural Law Association	Non Federal Organization
Extension Committees: Farm Management, Marketing and Policy (regionally based)	Non Federal Organization

Appendix F - Program Evaluations:

Portfolio (Portfolio Name)'s Program Evaluations				
Date	**Type of Evaluation/Analyses**	**Brief Description**	**Evaluation Recommendations**	**What Was the Effect**
2007	GAO – Beginning Farmers and Ranchers	Report focused on coordination of USDA activities affecting Beginning Farmers and Ranchers (all USDA agencies evaluated)	GAO recommended further activities to coordinate programs affecting Beginning Farmers and Ranchers.	Congress provided mandatory funding for the Beginning Farmers and Ranchers Development Program to begin in 2009 (CSREES delegated lead); Congress also provided enhanced BFR programs throughout other USDA agencies; many agencies have adopted BFR in strategic goals for agency focus

Appendix G: Additional Portfolio Success Stories

Farm Management & RME

- **Montana & Energy**

  Situation: Montana: With rising costs in petroleum based farm inputs; farmers and agriculture service providers are looking for new ideas, tools and practical on-farm solutions to help reduce energy use without jeopardizing overall farm production or income.

  Input: To address this issue, a Montana collaboration of partners completed a project called "Managing the Risk: Evaluating Farm Energy Use Tools and Alternatives for Montana" funded by the Western Region Risk Management Education Center. Total participants: 241.

  Output: Two workshops and two field tours were held to both test and educate on energy estimator tools and other energy resources. Workshops and tours provided over 200 farmer and Ag service provider participants with the skills, information, tools and resources they need to understand, examine, and determine risk; in current, projected and potential farm energy use scenarios.

  Outcomes**:** The workshops and tours addressed issues and questions farmers and age service providers are asking in a co-learning environment, in classroom peer learning and in “real life” farm settings. Farm energy calculators, project outreach and evaluation materials were all made available. Risk categories address: production; financial; investment. Target for the project was improved understanding of economic risks association with new production technologies and improved understanding of business and strategic planning. Of the farmers responding to one of the surveys employed in the project, half had made changes in their farming operations as a result of the workshop. Of the survey respondents that made changes in their farming operations, all also shared information that they learned at the workshop with others. One respondent wrote an article for the Western Farmer-Stockman and contacted other farm advisors or technical experts about farm energy. Changes made include reducing fertilizer applications, changing tillage practices to no-till and trying out at least one of the farm energy calculators that was discussed at the workshop. The farmers present represented a wide range of crops. Many were wheat farmers, but other crops raised include barley, oats, peas, lentils, flax, clover, alfalfa, legumes, and cherries. The majority of the farmers at both workshops use minimum or no-till systems. In both workshops, participants’ knowledge about farm energy calculators and energy savings associated with tillage and cropping systems increased significantly. Participants indicated that as a result of the workshop, they planned to try out one or more of the farm energy calculators mentioned at the workshop, learn more about changing their cropping systems, and/or contact one of the workshop speakers to get further information.

- **Colorado: Water**

  Situation: Irrigation water is an important risk management tool in limiting drought impacts and boosting crop yields. Additionally, rural communities are directly dependent upon the availability of water and the sustained tax revenue base of irrigated agriculture. Rapid population growth in urban areas is driving a reallocation of water use. Current and evolving legal institutions, on-going drought conditions, and groundwater depletions have significantly threatened water availability for irrigation.

  Input: "Planning for Reduced Water Availability to Colorado Agriculture" project was funded by the Western Region Risk Management Education Center. Total Participants: 566.

  Output: This project provided education to help producers better answer questions, such as: should the farm sell its water rights or maintain its irrigated livelihood? Can the farm become more water efficient using various cropping strategies and implementing irrigation technologies? Also, the project provided education to members of Colorado's Water Roundtables which were established to "facilitate continued discussions within the between basins of water management issues, and to encourage locally drive collaborative solutions to water supply challenges… (Colorado House Nill 05-1177)." Risk categories addressed included production, financial, legal, human, and investment risks. Targeted outcomes included: improved understanding and use of product and enterprise diversification, improved understanding of leases, contracts and negotiation and improved understanding of economic risks associated with new production technologies and ability to manage changes in policy and regulation.

  Outcome: When the project was designed, team members planned to use Ag Survivor (a RightRisk teaching tool) with 50 producers. As the project progressed, team members determined that other teaching tools were more appropriate for the actual audiences. At the one site in which an Ag Survivor scenario was used, all participants indicated on their post workshop evaluation that "managing the King Family Ranch" was a good way to learn about risk and risk management. The only negative aspect was that the scenario did not meet the needs of those participants involved only in timber and other forestry related businesses. Program participants were given an opportunity to (1) provide anonymous, written feedback and/or (2) interact with program speakers following the various programs or later via telephone and email. Increased knowledge was shown across the board among all participants.

Appendix H: Important Portfolio Projects and Additional Activities

- Insurance and Livestock

  With the addition of the Livestock Gross Margin (LGM) Insurance Program for cattle, producers can hedge against potential decreases in profits. Previously this insurance tool has been available only to swine producers in Iowa. LGM insurance provides price risk protection on the difference between fed cattle selling prices and feeder cattle and corn purchases price. By insuring this feeding margin, producers can hedge against decreases in profit per head. The North Central Region funded a project targeting both producers and crop insurance agents. Workshops were held throughout Nebraska, Kansas and Colorado at six locations and workshops were complemented by a distance education program. Video lectures and self-study guides are available through the project's website: http://livestockinsurance.unl.edu. Participants reached were 3,314 in number; topics covered were insurance products, market analysis and outlook, cash and futures pricing tools and marketing strategies, plans and clubs. Initially the goal was to reach only 25 insurance agents but approximately 290 took part in the program. These agents in turn provided information to producers. The education program is self-sustaining through the development of distance education materials and is available to a national audience of livestock producers, insurance agents and educators. Extension educators in other areas of the country have since reported use of the materials in their own education programs.

- Farm Plans for Environmental Certification

  This project provided assistance to shellfish growers to develop farm plans that incorporate best management practices as detailed in the Pacific Coast Shellfish Growers Association's Environmental Codes of Practice. The farm plan serves a dual purpose: 1) by adopting best management practices, growers are eligible to participate in an environmental certification program for farmed Pacific Coast shellfish, which is part of a larger strategic marketing program; and 2) individual farm plans serve as a foundation to help growers assure they are in compliance with and covered under required permits and regulations, including new Army Corps of Engineers permits. Workshops were held in 8 regions along the West Coast from Alaska to California, and culminated in a ninth and final workshop at the annual PCSGA conference with participants from Alaska, California, Oregon and Washington. Individual one-on-one technical assistance was made available and a total of 122 growers participated in workshops with at least 26 of the producers completing individual farm plans. Topics covered were marketing strategies, plans and clubs; tools for managing legal liability; business and strategic planning; and ability to manage changes in policy and regulation.

- Empowering Latino Producers through Risk Management Education & Networking

  From 1992 to 2002 Missouri experienced a 90% increase in Latino producers. Many of these producers feel isolated and uninformed on government serves and programs. Over 100 Latino producers took part in five bilingual workshops making risk

management tools available to them and establishing a networking opportunity in the state of Missouri. They met with trained personnel to discuss their individual risk management options and received assistance in developing business plans

- Risk Reduction Training in Four Farming Systems for Southern Producers

  Small and moderate-scale producers and beginning farmers interested in alternative farming enterprises not generally covered by crop insurance were targeted in this Kentucky project. Participants learned from experienced producers. Alternative production enterprises included organic vegetables and fruits, management intensive grazing of beef, cut flowers and pastured turkeys. Approximately 675 producers participated in a variety of workshops, field trips and short sessions. Nearly 70% of the participants learned to identify and address those critical risks associated with alternative enterprises and a greater understanding of new production technologies and business/strategic planning. Topics covered included product and enterprise diversification; marketing strategies, plans and clubs; direct, wholesale and processing markets; contract production, branded or certified marketing and value-added enterprises; financial records, analysis and bench marking; understanding of economic risks associated with new production technologies; and business and strategic planning.

- Diversifying Farm Accounts through a Southeastern Massachusetts Growers' Business-to-Business Network

  Increasing sales of local farm products is the goal of many small producers, but local producers find themselves in competition with the global market in today's marketplace. With the development of the Business-to-Business Network, local producers and food businesses come to the table to initiate business relationships in Massachusetts and Rhode Island. Over 70 producers participated in the two states and the number and dollar value of transactions were up substantially in the year following the project delivery. Topics covered included market analysis and outlook; marketing strategies; direct, wholesale and processing markets; contract production; leases, contracts and negotiation; business and strategic planning and interpersonal, family and business relationships

- Marketing Opportunities for Goat Producers

  Targeting value-added goat producers, this project gave goat farmers the access to a tool kit of web-based marketing information. Over 110 producers learned about the market potential for ethnic goat products, nutrition and health of meat goats, meat goat inspections and labeling of their product. The states of Iowa and Illinois were directly impacted by the project.

- Transitioning to Organic Farming Systems in Montana: Managing the Risk

  Farm tours with experienced "Farmer Trainers" assisted producers evaluating the risks and benefits of sustainable farming practices. Using the experience gained from these farm tours and information received at a related workshop, project participants

were able to complete an organic risk assessment analysis and an organic transition risk assessment analysis and because of these tools, over 50% of the participants in Montana chose to adopt organic crop production.

- The Roles, Successes and Challenges of Arkansas' Women in Agriculture

  Through funding provided by the RME program and related funding through RMA, support continued for the annual Arkansas Women in Agriculture statewide conference in 2007 in its third year; and the implementation of a new Annie's Project activity in key areas around the state of Arkansas. During the annual conference, over 300 women from around Arkansas convene to participate in workshops and short sessions covering a wide variety of risk issues. Ongoing research and surveys are tracking Arkansas' women in agriculture and aiding project organizers in identifying continuing needs of the population. The number of women principal operators grew about 6 percent in Arkansas between 1997 and 2002; with 25% of all Arkansas women farmers being identified as principal farm operators on 10% of the farms in the state. Following these women through ongoing surveys allows project coordinators to identify key challenges and goals of women farm operators. Measuring success for some is maximizing income or profit and for others is non-financial such as assisting the community or being able to use a particular skill. Of the 754 female conference attendees over three conference years, 344 agreed to participate in survey research that examined their roles, challenges and successes. More women in Arkansas are inheriting operations due to death, divorce or illness; but a growing number are making voluntary career changes into agriculture, beginning with small-scale production and increasing land base and production each year. Finally, a group is choosing college programs that prepare them for positions in agricultural industries.

  At the University of Arkansas, the number of female agriculture graduates grew by 50% between 1997 and 2005 and women report feeling more confident in their roles. When asked if the producers would continue in farming in the event of the loss of their life or business partner, 77% of those surveyed reported they would continue. Keeping and finding good employees and being respected as a female business person were the largest challenges faced by all the women surveyed but those listing these challenges were only 39% of the total respondents. Finding a good business lawyer, qualifying for government programs and keeping good financial records were the next highest ranked challenges with environmental regulation compliance and handling cash flow next in line. Gaining access to credit was generally not seen as a problem of those respondents participating.

- Injuries and Deaths of Minors in Agriculture

  The fiscal year 2008 Agricultural Appropriations House Report 110 -258 included in the Office of the Secretary of Agriculture a Congressional Directive regarding injuries and fatalities to minors: The committee directs the Secretary of USDA, in collaboration with the Secretary of Labor, to develop a plan to address injuries and deaths of minors in agriculture.

Input: United States Department of Agriculture (USDA) and United States Department of Labor (USDOL) continue to collaborate on training and certification programs addressing farm machinery and tractors, the most prevalent causes of farm-related youth fatalities.

Outputs and Outcomes: New training curriculum has been developed and implemented as a result of these efforts. Significant changes in agricultural production and in the agricultural workforce, as well as the high number of incidents of injuries and deaths associated with agriculture employment, have resulted in USDA and USDOL collaboration to revitalize the certification process, and to develop appropriate training, and review the restrictions concerning youth employment in hazardous agricultural jobs. Federal funds were appropriated to USDA beginning in fiscal year 2001 to develop new curriculum and instructor training for youth farm safety education and certification. A joint plan between USDA and USDOL has been prepared and is in the final stages of OMB clearance.