

Introduction

The Research and Development mission area of the United States Department of Agriculture's (USDA) Forest Service (Research) is committed to producing high-quality science and science-based tools and techniques that are relevant to, and closely aligned with, the land management responsibilities of the Forest Service. In recent report language, Congress has expressed concerns about the Forest Service's prioritization of research investments (Senate Report 115–276 and House Report 115–765). Most recently, Congress encouraged the Forest Service to restructure Research by fiscal year (FY) 2021 to “ensure that research activities are focused on the key areas where the Service's management responsibilities will benefit the most” (H.R. 1865 Explanatory Statement). This report provides Congress an update regarding the Agency's restructuring progress, as requested in the FY 2020 Domestic Priorities and International Assistance Appropriations Minibus (House Report 116–1865, Title 3, Joint Explanatory Statements, Division D; enacted December 20, 2019).

Starting in FY 2019, in response to the Congressional directive, the Forest Service has taken multiple steps to change the structure and functioning of Research to highlight and improve the mission area's ability to provide focused and scientifically rigorous data and analyses to better inform forest and grassland management on public and private lands. Some of these changes have already been made, some are in progress, and several will be put in place soon. The primary goal of Research's restructuring is to enhance its ability to function as an integral component of the Forest Service. Through restructuring, the objective of Research will be to produce knowledge and resources that most help the Agency accomplish its land management responsibilities.

Restructuring Overview

As a result of executive-level discussions within the Forest Service and based on input from internal and external stakeholders and users of Research products, the Forest Service has identified structural and operational changes needed to increase the mission area's contributions towards the Agency's land management responsibilities. These changes broadly address improved alignment of Research work with Agency priorities, enhanced integration of research operations with the other Agency mission areas, and improved communications. Similar topics were also identified and reinforced by a recent report commissioned in response to Congressional direction and conducted in the fall of 2019 by the National Academy of Public Administration.¹

This report focuses on four core areas of work to affect needed change: (1) Research Priorities; specifically, collaboratively identifying and clearly articulating national research priorities; (2) Research Alignment and Science Delivery; specifically, aligning research with the Agency's mission work and effectively delivering science to support the Agency's mission; (3) Research Standardization and Consistency; specifically, taking steps to conduct a more unified and nationally-coordinated approach to conducting and delivering research; and (4) Research Budget Accountability; specifically, structuring and managing the research budget in a way that clearly aligns research activities with the Agency's land management responsibilities.

¹ “Organizational Assessment for U.S. Forest Service Research & Development.” September 2019.
<https://www.napawash.org/studies/academy-studies/us-forest-service-assessment-of-research-development-function>

Research Priorities

During the fourth quarter of FY 2019, the Forest Service Deputy Chief for Research, in collaboration with the other mission areas, developed four national research priorities to guide budget allocations and research activities beginning in FY 2020. The national research priorities also tier to USDA and Forest Service strategic priorities, including risk-based wildland fire management and improving forest conditions.

The Forest Service National Research Priorities are: (1) applied science to support Shared Stewardship and improve forest conditions (e.g., market analyses, scenario planning, and large landscape research and decision support); (2) forest inventory and trend analysis (e.g., Forest Inventory and Analysis program, Resources Planning Act assessments, iTree planning tools, and National Woodland Owners Survey); (3) enhancements to the wildland fire system (e.g., prediction, planning, and decision support, impact assessment, and recovery); and (4) wood product and market innovations.

To reinforce the commitment to these priorities, the Deputy Chief for Research charged the five regional Research Stations, as well as the Forest Products Laboratory and the International Institute of Tropical Forestry, to report how their respective FY 2020 planned budgets will be spent in support of the four priorities. Going forward, research units will report their planned budget alignment with national research priorities to headquarters annually. This information will be used to inform budget allocations. This requirement will also reinforce the message from headquarters to regional research units that Research is restructuring business practices to more intentionally focus on national research priorities.

Furthermore, beginning in FY 2020, the Forest Service is increasing its emphasis on collaboration between research units (i.e., Research Stations) and land management units (i.e., Forest Service National Forest System and State and Private Forestry Regions). In October 2019, the Deputy Chiefs for the three mission areas of the Forest Service (i.e., Research and Development, National Forest System, and State and Private Forestry) sent a jointly signed letter to field unit executives (i.e., Station Directors and Regional Foresters) asking them to collaboratively select research priorities based on the needs of the national forests, state and private partners, and other Agency partners and cooperators in their respective regions. The first set of shared regional research priorities was submitted to headquarters on January 17, 2020. Regions and Stations will complete this exercise each year and the Agency will use the shared priorities to guide out-year research program budgeting and planning (i.e., the shared research priorities submitted in January 2020 will inform FY 2022 planning, including potential updates to the national research priorities).

To advance national priority research in FY 2020, Research will use a new and more intentional process to provide substantially more funding directly to the Forest Service research projects most likely to enhance natural resource outcomes as the Agency applies research findings pursuant to its management responsibilities. The use of this nationally led, priority-driven targeted allocation process demonstrates Research's adaptability in focusing resources on the studies and science delivery activities that best address the Agency's most pressing needs.

Research Alignment and Science Delivery

Research is working to better align its investigations with Forest Service management responsibilities and is dedicated to supporting the application of research findings. In January 2020, the Forest Service completed revision of its Research Grade Evaluation Guide (RGEG), the guide's first comprehensive update since 1995. The RGEG sets the standard by which research scientists are evaluated for performance and promotion. As a result of the update, scientists now have strong incentives to ensure their work is well aligned with the land management responsibilities of the Forest Service. The revised RGEG chapter titled "Guidelines for Preparing Research Scientist Position Descriptions" emphasizes the critical importance of collaborative research and of pursuing scientific advances that support the management of public and private forests and rangelands. In addition to this chapter, the value of collaboration is highlighted throughout the revised guide.

Furthermore, the Forest Service is facilitating more direct contact and research collaboration between Agency scientists and land managers. For example, the Rocky Mountain Research Station and the Intermountain Region are piloting efforts to encourage scientists and managers to innovate together to address management challenges. These efforts include joint science-management workshops and field consultations to find tangible ways for scientists and managers to integrate their respective efforts. The Forest Service intends to scale up these pilots, applying their most successful features to enhance research alignment and science delivery throughout the Agency.

Research's Forest Inventory and Analysis program also offers a model to help the rest of Research improve science delivery through its annual business report and user group meetings. The Forest Service is working towards applying the communication and accountability principles embodied in these activities at the Research-enterprise level (e.g., regularly report progress on initiatives, and highlight science applications).

Research Standardization and Consistency

Research is making structural and operational changes to improve its standardization, coherence, and consistency across the organization. Beginning in FY 2020, the Deputy Chief for Research will work more closely with the Chief on the annual performance reviews of Research Station Directors. This will increase the ability of the Deputy Chief to guide, from a national perspective, the research program collectively delivered by the Research Stations. This includes careful crafting of the performance standards by which research executives are evaluated.

Regarding enterprise-level communications enhancements, Research is currently collaborating with the Forest Service Office of Communications to evaluate and to improve the quality, distribution, and Agency-level consistency of communication products across all of Research. Research's updated communication strategy provides concrete examples of Forest Service research products that have enhanced land management, as well as forest products and markets, to illustrate how relatively small investments in Research result in significant returns for the Agency with respect to management outcomes. Examples of such investments include research to inform widespread adoption of cross-laminated timber construction, the Forest Inventory and Analysis program, and the Wildland Fire Decision Support System.

To increase Research's awareness of the needs and challenges of other Forest Service mission areas and, conversely, to raise the awareness of other mission areas of the contributions and capabilities of Research, the Agency is increasing its use of temporary staffing assignments that are co-supervised and co-funded by Research and one or more other mission areas. The Agency has also placed greater emphasis on ensuring that Research staff are assigned to internal work groups tasked with addressing high-priority topics for the USDA and Forest Service (e.g., Shared Stewardship, and environmental analysis and decision making). For example, Research staff are playing a major role in developing performance measures to track the accomplishments of the Agency's Shared Stewardship efforts.

Research Budget Accountability

Research is restructuring its approach to budget reporting and accountability to show more clearly how appropriated funds are invested in activities aligned with Forest Service land management responsibilities. In previous years, Research's budget has been displayed as a matrix of strategic priority areas according to research topics (see Forest Service FY 2019 Budget Justification, p. 30). While this approach was useful for categorizing research projects, it lacked explicit reference to deliverables and did not make connections between research investments and Forest Service management responsibilities. The new approach will be to report the Research budget as a matrix of strategic deliverables according to Forest Service land management responsibilities. For example, research deliverables might include innovation, inventory, and decision support. Investments in these can be displayed according to relevance to Fire and Aviation Management, Silviculture and Timber Management, and others. This display of deliverables according to land management responsibilities will result in a substantial increase in the research budget's transparency and will clarify how investments are being made to support the needs of the Agency and its partners and cooperators. It will also serve as an effective communication and planning tool to help ensure research investments are aligned with Congressional, departmental, and Agency priorities.

Conclusion

As a research organization embedded within a land management agency, Research occupies a unique niche and makes significant contributions to the Forest Service. Research stands out for its ability to conduct management-oriented research at broad spatial scales over time periods that are long enough to provide robust scientific insights to inform environmental policy and decision making. Research has made major contributions to forest management nationally and globally during the first 100 years since its founding and has the potential to attain even higher levels of achievement and integration in the future.

The Forest Service recognizes the critical importance of research mission alignment with the Agency's land management responsibilities and is taking steps to achieve this critical goal. The Agency appreciates Congress's interest in this subject and looks forward to continuing interaction as we restructure Research to improve its ability to produce and deliver forestry science that increases the rigor and impact of the Agency's land management activities.