

NAUFRP Research Chair Report

March 20, 2023

Bob Wagner
Purdue University
NAUFRP Research Chair

Progress continued developing new approaches for addressing the two-decade decline in forestry R&D funding, capacity, and relevance. This two-pronged effort involves close partnership with the SAF (Terry Baker) and the US Endowment for Forestry and Communities (Michael Goergen).

Below is a summary of the progress made since last Fall:

1. Conduct national survey of foresters to identify highest-priority forest management problems at state, regional, and national levels.

A team led by Emily Huff (Michigan State University) has developed a new survey instrument for implementation in Spring 2023. The survey will include foresters managing lands for state agencies, federal organizations, large private owners/managers, family forest owners, and forest managers from environmental NGOs.

In conjunction with the survey, an in-person summit is being **held on June 6-8, 2023, in Washington, DC**. The summit will include an evening reception on June 6, followed by a day-and-a-half of collaborative discussions on June 7 and 8. Led by Emily Huff, the summit will convene forestry thought leaders to discuss and review findings from the 2020 virtual summit, the new 2023 national survey, and feedback from each attendees' constituents, clients, and organization members. A second goal is to discuss strategies for communicating the R&D priorities derived from the survey, and finally to discuss how such national prioritization efforts should be coordinated in the future. This event is co-hosted by the Society of American Foresters and US Endowment for Forestry and Communities.

2. Build consortium of national forest-based organizations willing to support and lead a long-term communications effort about the need to address high-priority forest management problems.

Long-term success in reversing the decline in forestry R&D funding, capacity, and relevance will require a consortium of national forest-based organizations willing to lead and support a sustained communications effort. Results from the survey identifying high-priority forest management problems must be regularly and effectively communicated to the forest research community, research funding agencies (e.g., NIFA, USDA, NSF, etc.), policy makers, and other leaders about the need to solve on-the-ground forestry problems. It is also important to periodically update the survey to ensure that the priorities are always up to date.

The attached proposal was developed and emailed to representatives of the two-dozen organizations listed in the proposal. Bob Wagner is following up emails with meetings to explain the purpose of the effort and gauge overall support for the idea. About a quarter of the organizations contacted so far have indicated the strong need for this effort and support continued development of the idea. No organization has not supported the idea.

Conversations are also ongoing around identifying an organization willing and able to host the communications and continued survey efforts over time. After a presentation to the SAF Board last summer, they have expressed interest in possibly hosting the effort. In conversations with forestry organizations, the idea of SAF hosting this effort has received general support so far.

Once a critical mass of organizations supporting the proposal has been generated, the next step will be developing an MOU with a host organization that can raise sufficient annual funding to support the communications effort and periodically update the national survey.

If you have any questions about this effort, please contact Bob Wagner at rgwagner@purdue.edu or 207-949-4067.



New Approach Needed to Solve Problems Facing Forest Managers in US¹

Threats and Opportunities for US Forests

Forests across the US face major threats, including increasing wildfire, insect and disease outbreaks, invasive plants and animals, climate change, and fragmentation. Forest managers work to mitigate these threats on-the-ground every day.

Tremendous new opportunities also exist for the nation's forests, including increasing carbon sequestration and storage to help mitigate climate change, bolstering economies of forest-based communities, providing clean freshwater, increasing biodiversity, expanding urban forests, and connecting the public with nature for numerous health benefits.

To adequately address these threats and capture new opportunities for forests will require greater focus on the most important problems facing forest managers across the country.

Challenges to Addressing Threats and Capturing Opportunities

A major limitation to solving the highest-priority problems facing forest managers has been the steady erosion of the capacity and practical relevance of forest research over the past several decades.

Declining forest research capacity - Forest and forest products research and development (R&D) capacity in the US has eroded significantly over the past two decades (1,2). The reduction in scientist numbers and funding has occurred across federal, university and industry organizations. For example, the number of professors in university forestry programs declined 10%, US Forest Service scientists decreased 19%, and researchers in forest industry declined by 50% from 2002 to 2016 (2). US Forest Service staffing in fields essential for wood products innovation is only 25% of the level that it was three decades ago (1). Staffing also has been reduced by 40% in fields critical for protecting forest health (e.g., entomology and pathology). As a result, there are substantially fewer experts in the fields of forest management, forest protection, and forest products employed by forest resources organizations than two decades ago. These reductions have occurred during a period when the threats and opportunities for forests in the US have never been greater (3). ***Unless we rebuild and sustain this R&D capacity, long-term stewardship of the nation's forests and global competitiveness of the forest products sector are at severe risk.***

Declining relevance of research to forest managers – Results from a recent 2020-21 US Forest and Forest Products R&D Capacity Summit revealed that leaders from large private forest owners/managers, family forest owners, state forestry agencies, the USFS National Forest System, and environmental NGOs, found forest research information to be increasingly irrelevant in helping them solve practical forest management problems (4). Recent findings from a study of doctoral

¹ Authors: Robert G. Wagner,^a Emily S. Huff,^b Michael Goergen,^c and Terry Baker^d

^a Department of Forestry and Natural Resources, Purdue University

^b Department of Forestry, Michigan State University

^c US Endowment for Forestry and Communities

^d Society of American Foresters

dissertations in forest resources also found a substantial decline in topics focused on solving applied forest management problems over the past few decades (5).

Proposed Solution

We seek to help reverse the erosion of national forest research relevancy and capacity using a two-pronged approach:

- 1) **Identify most important problems facing forest managers** – A principal reason for the reduction in relevancy of research is that there is no national clearinghouse or database clearly identifying high-priority forest management problems in the US. Therefore, we propose developing a new **Forest Management Problems Survey (FMPS)** to clearly identify the most important regional and national challenges facing forest managers on-the-ground. The survey will include forest managers and landowners responsible for significant forest properties, including large private forest owners/managers, family forest owners, managers of federal forestlands, state foresters, and forest managers from conservation organizations. Results from this survey will be compiled and published in an online document clearly describing the highest-priority problems facing forest managers at the regional and national levels.

The *US Endowment for Forestry and Communities* is supporting implementation of the **initial survey in 2023**. We will periodically update this survey (at least every five years) to ensure that the priorities are always up to date.

- 2) **Inform leaders about most important problems facing forest managers** – Unlike agriculture, which has historically had various organizations and commodity groups identifying and communicating the problems facing farmers across the country, forest managers and landowners have not had a similar organized effort. Thus, we propose developing a long-term effort that will regularly communicate with the forest research community, research funding agencies (e.g., NIFA, USDA, NSF, etc.), policy makers, and other leaders about the need to place greater emphasis on solving the highest-priority problems identified by the FMPS. Developing an organized effort that can maintain the FMPS and effectively communicate the needs of forest managers will require a strong consortium of supporting forest management organizations.

- a) **Build consortium of forest management organizations** – Effectively communicating with the research community, research funding agencies, policy makers, and other leaders about solving practical forest management problems will require the strong voice of a large, national coalition of forestry organizations. Therefore, we seek to build a consortium of organizations willing to support and financially contribute to delivering the FMPS and allied communications effort. The consortium must include leading organizations representing the interests of private, state, federal, and other forest managers and landowners. Organizations being contacted for potential membership in this consortium include:

- American Forests
- American Forest Foundation (AFF)
- American Forest & Paper Association (AF&PA)
- American Wood Council (AWC)
- Association of Consulting Foresters (ACF)
- Association of Cooperage Industries in America (ACIA)
- Bureau of Indian Affairs (BIA)
- Bureau of Land Management (BLM)
- Council of Forest Engineering (COFE)
- Federal Forest Resource Coalition (FFRC)
- Forest Landowners Association (FLA)
- Forest Resources Association (FRA)
- Forest Stewards Guild
- Forest Stewardship Council (FSC)
- National Association of Forest Owners (NAFO)
- National Association of State Foresters (NASF)
- National Association of University Forest Resource Programs (NAUFRP)
- National Council for Air and Stream Improvement (NCASI)
- National Forest Foundation (NFF)

- National Woodland Owners Association (NWOA)
- Natural Resources Conservation Service (NRCS)
- Pinchot Institute for Conservation
- Society of American Foresters (SAF)
- Sustainable Forestry Initiative (SFI)
- The Nature Conservancy (TNC)
- US Endowment for Forests & Communities
- USDA Forest Service (USFS)

Some of these organizations have already been contacted to provide feedback on the FMPS during summer 2023.

- b) **Find or build a host organization that can deliver the FMPS and associated communications effort** – After the consortium of supporting forest management organizations is developed, delivery of the FMPS and allied communications effort will need to be housed in a new or existing organization.

This organization should be:

- Capable of managing the FMPS and leading a strong communications effort with the forest research community, research funding agencies, policy makers, and other leaders across the country;
- Viewed as a credible and objective source of information about forest management;
- Independent of research organizations receiving national funding for forest research; and
- Independent of industry and government organizations.

The mission of the host organization will be to:

- Regularly conduct, analyze, and report results of FMPS;
- Inform the forest research community, research funding agencies, policy makers, and other leaders about the need to address top regional and national forest management problems identified by the FMPS; and
- Monitor and report progress of nation's R&D organizations in addressing top national and regional forest management problems identified in the FMPS.

More Information?

If you are interested in learning more about this national collaborative effort, please contact **Bob Wagner**, Purdue University, at rgwagner@purdue.edu or 207-949-4067.

References

1. US Endowment for Forestry and Communities. 2017. [Final report of the Blue Ribbon Commission on Forest and Forest Products Research & Development in the 21st Century](#). US Endowment for Forestry and Communities, Inc. Greenville, SC. 20p.
2. McGinley, K.A., R.W. Guldin, and F.W. Cabbage. 2019. [Forest sector research and development capacity](#). *Journal of Forestry* 117(5): 443-461.
3. Loehle, C., J. Hulcr, J.A. Smith, H.L. Munro, and T. Fox. 2023. [Preventing the perfect storm of forest mortality in the United States caused by invasive species](#). *Journal of Forestry* 121(1): 104–117.
4. Huff, E.S., R.G. Wagner, J.K. Gilles, and M. Goergen. 2021. US Forest and Forest Products R&D Capacity: Results from 2020-21 Stakeholder Summit. Unpublished report to National Association of University Forest Resources Programs. 37p.
5. Wagner, R.G., K.M. Bellisario, and N.N. Kong. 2022. [Change in doctoral dissertation topics in forest resources from US universities over four decades](#). *Forest Science* 68: 226–236.