Report to the Secretary of Agriculture

Forestry Research Advisory Council[1]
August 2012[2]

We recommend significantly increasing forestry research funding to meet the needs of a changing environment in urban, rural, and wildland settings.

> Although US Forest Service research funding has been relatively stable over the past decade, personnel and research infrastructure costs have increased resulting in a 50% reduction in research scientists over the past 25 years. The diminished scientific capacity harms our international competitiveness, forest resource management decision making, and ability to respond to threats to forests. Adaptive management requires investment in science to meet the constantly shifting disease, pest, environmental, and socioeconomic challenges.

We recommend increasing McIntire-Stennis funding and allocating $50 million under the existing formula arrangement, as recommended by the NAUFRP.[4]

> At the 50th anniversary of the signing of the McIntire-Stennis Act, we recognize that this bill has greatly impacted forestry research nationally. However, funding for the McIntire-Stennis (MS) Cooperative Forestry Research Program has not kept pace with Forest Service Research or Hatch Program funding and impairs the ability to meet the research needs and opportunities of the MS 2007 strategic plan programmatic expansion of "Emerging and Integrative New Areas of Knowledge". MS funds provide critical support for training graduate students who become the next generation of forestry researchers. The nation would be well served by devoting new funding to an additional competitive program to address targeted priorities. We recommend that the Secretary analyze the benefits from developing an additional competitive program, funded with at least $10 million. In addition, as the number of eligible institutions has expanded, it is important that the guidelines for matching requirements be clear. **Incentivizing competition for formula funding through "match" is increasing administrative costs and should be discontinued.**

We recommend that the Forest Service actively engage Research and Development in the support and implementation of the new National Forest Planning Rule..

> The Planning Rule provides a new regulatory framework, to "use the best available scientific information to inform the planning process" in updating the land and resource management plans for national forests and grasslands, and requires documentation of how this science was used in developing management plans. Implementing the rule will require significant researcher-manager collaboration focused on coupled human-natural systems, adaptive capacity, and other ecological and socioeconomic dimensions of land management.

We recommend that the Forest Service develop a plan with partners to identify strategies for increasing capacity for social and economic science within Forest Service Research and Development.

> Given the reductions in research staff capacity over the past 25 years, a systematic analysis of disciplinary staffing levels and their match to the agencies research aspirations would be timely. A social science Strategic Program Area would facilitate a comprehensive analysis of policies that govern National Forest System management to identify conflicting mandates, barriers, gaps and opportunities.

We recommend that the USDA agencies engaged in invasive species management and research convene a summit across federal, state, and research institutions to strategically address gaps capacity to address invasive species.

Invasive species research and management is a core focus of the Forest Service and a critical issue across all forest lands. Yet, capacity is declining in all phases of invasive species research, monitoring, and management across the USDA and state forestry and agriculture agencies and universities.

We recommend that Forest Inventory and Analysis (FIA) continue to be a priority for the Forest Service as the agency deals with additional demands for data and functionality.

Every forested state should have a regularly updated, complete, and current FIA report. The FIA provides critical information for forest investment and job creation not available from any other organization. Decisions on the use of forest resources and allocation of public and private investments are predicated on forest conditions including health, growth, and inventory. The information supplied through FIA provides an assessment of forest conditions for both urban and rural forests that affect public health and safety.

We recommend that the Forest Service continue with its recent efforts to improve the technology transfer and outreach efforts resulting from the 2011 GAO report, and support measurable outcomes of effective technology transfer.

Opportunities exist for cooperation with technology transfer efforts in other federal, state and NGO programs engaged in forest science communication, education and outreach.[5] To encourage further engagement by scientists, the committee supports their participation in a broad range of outreach activities and panels as part of their specific work plans.

We recommend the USDA to continue their leadership on fire research and applaud its strong support of the Joint Fire Science Program.

Potential new areas of fire research include masticated fuels and novel changes in forest communities. We encourage improving the linkage between the research programs on fire and on biomass harvesting, such as studying feasibility of woody biomass removals as a tool for restoration and improved forest health.

We welcomed the reports addressing FRAC recommendations from 2011, and support the continued efforts with regard to systematic integration of ecological data within the PCAST [3] effort, and the continued efforts in the FIA program. The council requests a formal response to our recommendations at the next USDA FRAC meeting, which is targeted for February 2012.

[1] The members of the Forestry Research Advisory Council (FRAC) are: Jason Grabosky (Chair), Rutgers University; Cassandra Moseley, Institute for a Sustainable Environment (Chair-Elect); Masood Akhtar (immediate past Chair), Bioenergy Deployment Consortium; Joyce Berry, Colorado State University; George Brown, Agenda 2020 Technology Alliance; Melissa Cook, Sustainable Development Institute; Daniel Dructor, American Loggers Council; Bov Eav, USFS; Alexander Evans, Forest Guild; J. Keith Gilless, University of California, Berkeley; Evan Hjerpe, The Wilderness Society; Scott Josiah, Nebraska Forest Service; Carlos Rodriguez-Franco USFS; Robert Smith, Virginia Tech; Mark Tjoelker, Texas A&M University; Eric Vance, NCASI; Charles Vandersteen, Louisiana Forestry Association.
[2] The Council met in Washington, DC on June 5-7, 2012.
[3] President's Council of Advisors on Science and Technology (PCAST) report: Sustaining Environmental Capital: Protecting Society and the Economy
[4] NAUFRP is the National Association of University Forest Resource Programs. Bullard S.H., Brown P. J., Blanche C. A., Brinker R.W., Thompson D. H. 2011. A "Driving Force" in Developing the Nation's Forests: The McIntire-Stennis Cooperative Forestry Research Program. J. Forestry. April/May 141-148.
[5] State Forests, Agricultural Experiment Stations/Cooperative Extension, State and Private Forestry, Experimental Watersheds, NGOs and Tribal lands, enhanced NSF LTER and STEM programming