

Report to the Secretary of Agriculture
Forestry Research Advisory Council¹
July 2, 2013²

Our nation's forests contribute clean water, wildlife, carbon sequestration, jobs for rural communities, recreation, wood, energy, and other bio-based products. All forestlands, from the smallest family-owned parcel to the vast tracks of national forests, are key contributors to these goods and services. Threats to U.S. forests and the services they provide are increasing in intensity and scope. Threats to forests include forest conversion, wildfire, insect and disease infestations, and climate change. Threats to the forest-reliant industries and communities they support include loss of production capacity, concerns about losing social license to operate, and global competition.

There is a disconnect, however, between the increasing threats to forest values and decreasing funding for forestry research infrastructure and capacity to respond with science-based recommendations to those threats. Forestry research in the United States is fragmented, uncoordinated, and suffers from a lack of visibility within agricultural and broader federal research agendas. To enable forestry research at a level commensurate with its value to society, we recommend that forest health and sustainability become a greater priority within Agriculture and Food Research Institute (AFRI) and that investments in Forest Service Research and Development be increased. We recommend that the USDA focus investments on the infrastructure, people, and communication of forest research.

Agriculture and Food Research Institute: We recommend that AFRI pursue four short-term strategies:

- Request that the President's Council of Advisors on Science and Technology (PCAST) undertake a report on forest land and management.
- Increase the number of forest-related stakeholders on USDA federal advisory committees including National Agriculture Research and Education, Extension, Economics, Advisory Board, Biomass Research and Development Technical Advisory Committee, and others.
- Engage the USDA Forestry Research Advisory Council (FRAC) and other forestry stakeholders in the process of developing new research institutes, as recommended in the 2012 PCAST agriculture report³, and seriously consider that one of these institutes is focused on forests and forestry.
- Make use of existing USDA authorities to invest in university and laboratory research infrastructure. As the 2012 PCAST report identified, agriculture and forestry research facilities are seriously deficient relative to those supporting other disciplines. This would bring the USDA in line with the standard practices of other research agencies.

McIntire-Stennis: As documented in the recent review of the McIntire-Stennis (MS) Cooperative Forestry Research Program,⁴ this program continues to be a highly leveraged and productive investment of public funds. MS is effective, in part, because of the flexibility participating institutions have to tailor their formula funds to divergent institutional environments and because a significant portion of the funds support graduate students. However, funding for MS has not kept pace with Forest Service Research or Hatch Program funding. To further enhance the effectiveness of MS, we recommend:

- Increasing McIntire-Stennis funding, allocating \$50 million under the existing formula arrangement, as recommended by NAUFRP.⁵ We also recommend that the Secretary propose an additional competitive program, funded with at least \$10 million, to meet the research needs and opportunities of the MS 2007 strategic plan programmatic expansion of “Emerging and Integrative New Areas of Knowledge.”
- Encouraging multi-investigator projects to increase the capacity to address complex questions.
- Streamlining research reporting efforts to increase administrative efficiency

Forest Inventory and Analysis A current and continuous forest inventory facilitates decisions to locate new industry and create jobs, identify and direct resources to critical forest issues, and ensure the forests of the US are providing the greatest good to society. The FRAC recommends a continued financial and scientific commitment by the Forest Service to the Forest Inventory and Monitoring Analysis program.

Sustainable Bioenergy Priority Area We endorse a USDA research investment across a full spectrum of bioproducts including forest-based biofuels, biochemicals and biopower (heat and electricity) to foster a fully integrated wood-based bioproduct sector. This approach will contribute to the President’s comprehensive energy strategy while creating a more cost-effective and sustainable sector.

Forest Service Research and Development We appreciate Forest Service efforts to investigate agency research labor needs. We look forward to additional information and strategic thinking about knowledge retention strategies, upcoming retirements, and workforce planning. We encourage the Forest Service to explore: Joint appointments with non-federal research institutions; allowing land grant universities to collect their federally negotiated overhead on joint venture agreements; engaging with universities to develop and sustain a pipeline for entomology and pathology as well as address Forest Service workforce composition limitations in social science, geospatial, and data analysis.

Experimental Forests and Rangelands (EFRs) The Forest Service, state agencies, universities and non-governmental organizations have a vast array of experimental forests, whose diversity and long-term data collections offer vital data to tackle some of the most complex problems we face, including understanding climate change impacts from local to continental scales. To achieve this potential, these experimental forests need to be networked and well coordinated.

- EFRs should also coordinate with university, state, and other research forests to respond to the M-13-13 directive to manage information throughout its life cycle.⁵ Coordination is critical as the Forest Service designs and deploys new data standards, access protocols, and information management systems.
- Within the Forest Service, greater efforts should be made to develop and coordinate priorities for maintaining long-term data series at the regional and national levels, and to leverage data collection efforts with others.
- Invest more funds and personnel at the national level to enable the EFRs to function as an effective network that can provide data on climate change impacts and evaluate adaptation and mitigation strategies.

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; 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; Eric Vance, National Council for Air and Stream Improvement (NCASI); Charles Vandersteen, Louisiana Forestry Association.

² The Council met in Washington, DC on February 7-8, 2013 and June 13-14, 2013.

³ PCAST Report to the President on agricultural preparedness and agricultural research enterprise. December 2012 http://www.whitehouse.gov/sites/default/files/microsites/ostp/pcast_agriculture_20121207.pdf

⁴ Rickenback M., Mohamed A., Norland E., Blanche C. 2013 Final Report: Review of McIntire-Stennis Cooperative Forestry Research Program

⁵ 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 Office of Management and Budget memo on "Open Data Policy-Managing Information as an Asset" May 9, 2013 www.whitehouse.gov/sites/default/files/omb/memoranda/2013/m-13-13.pdf