

Forestry Research Advisory Council (FRAC) Meeting

October 12-13, 2016

USDA Forest Service Yates Building
Washington, DC

Attendees

Council Members: Drs. John Alexander, Nicole Cavender, Cheung, Kevin, Alexander (Zander) Evans, Alex Finkral, Myron Floyd, Shibu Jose, Adrian Leighton, Deborah McCullough, Cassandra Moseley, Eric Norland, Carlos Rodriguez-Franco, Robert Smith and Glen Stanosz; Lance Holter, Shannon Ramsey and Ronald Reed. *Not in attendance:* Dr. Charles (Buck) Vandersteen and Henry (Gene) Kodama

USDA Forest Service FRAC Staff: Tracy Hancock (DFO), Sharon Parker, Ph.D., Catherine (Cat) Whittaker

USDA National Institute of Food and Agriculture (NIFA) Staff: Drs. Catalino Blanche and Ali Mohammed

Guests/Speakers: John Barnwell, Keith Belli, Thomas Brown, Brett Butler, Susan Cook-Patton, Robert Grala, Richard Guldin, Deborah Hawkinson, Serra Hoagland, Donald Hodges, Christopher Koepfel, Gregory Reams, Robert Simpson, David Tenny

Wednesday, October 12, 8:30 a.m.-12:15 p.m.

Welcome and opening remarks were offered by Dr. Shibu Jose (acting for Chair); Cat Whitaker followed with safety, logistics and hospitality messages; Tracy Hancock ended the opening session with a review of the FACA Ethics. Dr. Parker provided a sign-in sheet for SAF members to get credit for attending the meeting.

The following speakers presented talks as indicated (Dr. Jose facilitated the Q&As):

- Gregory Reams, Ph.D., National Program Leader, FIA – *Forest Service Atlas*
- Dr. Carlos Rodriguez-Franco, Deputy Chief, Forest Service R&D – *Forest Service R&D Budget Overview*

A panel was convened to discuss *Forestry Research Consumers/Users*; Robert Simpson, President/CEO, GreenWoodGlobal Consulting, Ltd., was the moderator. Panelists included:

- David Tenney, Founding President/CEO, National Alliance of Forestland Owners; Deborah Hawkinson, President, Forest Resources Association
- Susan Cook-Patton, Forest Restoration Scientist, The Nature Conservancy, Forest Carbon Science/Global Lands Team
- Dr. Brett Butler, Research Forester, USDA Forest Service, Northern Research Station, Amherst, MA

The afternoon session (1:05 p.m.- 2:30 p.m.) convened with presentations by:

- Keith Belli, Ph.D., Incoming President of NAUFRP, Professor and Head, Forestry Wildlife and Fisheries Department, University of Tennessee, Knoxville
- Richard Guldin, Ph.D., Senior Research Fellow, SAF
- John Barnwell, Director, Government Affairs and External Relations, SAF
- Serra Hoagland, Ph.D., USDA Forest Service, Southern Research Station, Flagstaff, AZ

The session was facilitated Dr. Jose (as acting Chair)

A second panel was convened at 2:30: *Quantifying Non-timber Resource Values from Forests*, Dr. Blanche was the moderator. Panelists included:

- Thomas Brown, Ph.D., Economist, USDA Forest Service, Rocky Mountain Research Station, Fort Collins, CO
- Donald Hodges, Ph.D., Director, Natural Resource Policy Center, University of Tennessee, Knoxville
- Roberta Grala, Ph.D., Associate Professor, College of Forest Resources, Mississippi State University

At the end of the first day, Dr. Jose (as acting Chair) led the Council in a recap of recommendation that were captured by the speakers (see pages 4-7) and asked members to identify primary topics for the letter to the Secretary and what they wanted to see in the next agenda. Members responded accordingly:

- Moseley: a request for the restoration of the JFS funding and put back in wildfire budget
- Stanosz: enhance USDA extramural research and university research capacity
- Cheung: mass timber, tall wood buildings
- McCullough: identify need for research funding related to all aspects of forestry and increase in Mc-Stennis budget
 - Next agenda topics: invasive forest insects and pathogens
- Finkral: wildfire funding/fixes (fire borrowing), tribal colleges
 - Next agenda: eastern pest and pathogens; effect of management and forest on wildlife and endangered species
- Leighton: Mc-Stennis formula and the degree to which it could change
- Cavender: statement about what research has found in ecosystem services (strong data and impacts)
 - Next agenda: more about research stations
- Holter: fire borrowing, quantify value of ecosystem services and benefits of recreation
 - Next agenda: bring in more experts from FS on recreation (to discuss trails, infrastructure)
- Jose: Mc-Stennis funding – increase
 - Next agenda: what is the justification to change the formula; if changed, how do we change it and the implications to existing programs
- Hancock: where would the Council suggest funds should be invested if R&D got increase
 - Next : integrate R&D and transfer technology to land management
- Evans: JFS program and position in budget
 - Next agenda: want to hear more about how R&D can be of service to large landscape restoration
- Ramsey: fire, supporting landowners communities with ecosystem services, social research, recreation
 - Next agenda: have report from group that has worked on public health
- Floyd: capacity building (Mc-Stennis, education/diversity in R&D and workforce and relationship between R&D and universities); ecosystem services; how science is communicated

- Next agenda: invite FS researchers who study recreation
- Norland: renew the request to NIFA to do critical need shortages in forest disciplines
 - Invite Dr. Sonny Ramaswamy (Administrator, NIFA) and Dr. Rodriguez-Franco early in the meeting to give FRAC an update/progress on recommendations
 - Invite \$20M southern loblolly pine project to report out on that project
- Alexander: wildlife took big hit with movement of money to FIA – bridging gap between research and management; identify values and relevance of research made on national forests and state and private; need Federal advisory committee liaison
 - Next agenda: what is going on at the research stations; how are stations partnering w/NGOs; structure agenda and give speakers questions and guidelines; manage time better

The meeting adjourned at 5:00 p.m. by the DFO

Thursday, October 13, 8:30 a.m.-3:00 p.m.

Prior to members breaking into assigned groups to draft sections of the letter, members unanimously voted that Dr. Nicole Cavender will be the next Vice Chair. Afterwards, Dr. Jose (as acting Chair) presented the guidelines to develop the letter:

- Keep letter short (one-pager); noting hierarchy of the asks is important
- Show progress in R&D research, albeit limited budget
- Scour previous letters to address items in small groups

Council members also recommended the following going forward:

- Inviting R&D and NIFA leadership to talk about recommendations from previous letter to Secretary and progress made; this way, FRAC can have first-hand knowledge of Secretary's concerns, expectations, etc.
- More direction for requests is needed

Dr. Jose (as acting Chair) directed the members to develop groups and section topics; FRAC staff assisted members with room assignments:

- 1) Introduction – Alpine Meadow
 - a. Finkral
 - b. Cavender
 - c. Holter
- 2) NIFA (capacity building) – Totem
 - a. Leighton
 - b. McCullough
 - c. Norland
 - d. Glen
- 3) FS R&D – Training Room
 - a. Evans
 - b. Ramsey
 - c. Alexander
 - d. Cheung
 - e. Floyd
 - f. Moseley

At 1:00, groups reconvened as a full committee to report out and consolidate sections drafted for the letter. After closing comments by Gene, the meeting was adjourned at 3:00.

FRAC Speakers' Notes and Recommendations, October 12, 2016

Forest Atlas (Reams)

Forest atlas is used to link ourselves to users. Developing applications to relate and to tell 'our' stories. Goal for forest atlas in reference to FRAC is to get info out as quickly as possible so users can use information, and to produce timely information that is relevant to major thematic areas that affect forest communities, as stories across the country are different.

R&D Budget Overview (Rodriguez-Franco)

R&D's focus areas: Wildland Fire Management, Communities, Diversity and Inclusion, Ecological Restoration and Safety. Although R&D got a decrease in funds, R&D will continue to support its Priority Research Areas: Watershed Management and Restoration, FIA, Forest Disturbance, Bioenergy and Biobased Products, Urban Natural Resource Stewardship, Nanotechnology and localized needs research (provide funding to stations to work on regional/local areas that need solutions). Budget specifics:

- No fire borrowing back to R&D in FY17
- FY 17 President's budget = \$292 million +\$1 million from FY 16 enacted levels. Grand total enacted, \$318 M:
 - \$291 M – R&D appropriated
 - \$20 M – National Fire Plan
 - \$7 M – JFSP

NAFO Perspective (Tenny)

Approach to research: NAFO, an advocacy organization; determines advocacy needed. Research priorities: start by looking at what's "coming down the pike", then ask what will be the questions that will be asked; what messages will be conveyed to make sure information provided is highly relevant. Can fill gaps in research through ongoing research via FS, university or will have to buy it (least efficient way). Members want to maintain the high ground on areas that should be maintained: carbon, water and critters:

- Carbon: want to make sure we can make the claim that managing our forests for the long term is contributing to the solution of climate change.
- Water quality: success is when EPA concludes that further regulation is not necessary because of State's best-management practices, which equates to this organization doing their job
- Species conservation: have wonderful success working w/Fish & Wildlife Service; what they do in forest management is at the scale of species conversation.

FRA Perspective (Hawkinson)

Only association that represents landowner suppliers and consumers. Most pressing needs:

- FIA; an area for growth and opportunity
- Opportunity for improving remote sensing (to get information in real time)
- Importance of carbon measurement; what FRA is finding in policy sector, got to get good solid information (on sample plots, for example) that can be trusted. The National Woodland Owner Survey provides the best information on how landowners use their land; this information is critical

Areas of markets:

- Utilization as woody biomass (need more emphasis needed)
- Development of wood-based products
- Continue support for mass continue construction

Hawkinson's charge to FRAC: think about the markets that tell the story about the forest product industries and the challenges they face. Don't lose sight of the forest operations. Timber harvesting equipment – improving based on environment, but more should be done to sufficiently improve harvest. Protect threatened species; it's important.

TNC Perspective (Cook-Patton)

Take home recommendations (via questions asked):

- 1) How do we best manage forests, especially in anticipation of climate change?
 - Invest in research to elucidate how climate change will alter forest restoration approaches
- 2) How can we better integrate people and natural systems?
 - Invest in research to understand and quantify the economic, social, and human health returns of forests and forest restoration
- 3) How can we expand the scale of Forest Service research?
 - Increase opportunities to learn from restoration activities, through monitoring, adaptive management, and landscape level analyses

National Woodland Owner Survey (Butler)

Key findings:

- Family forest owners rule!
- Amenity values dominate
- Landowners are old
- Most owners are not being reached

Research needs:

- Continued monitoring and assessment
- More program evaluation
- More research coordination

Mc-Stennis (Belli)

Just completed an updated strategic plan, supported by NIFA; Belli provided Council with summary (brochure) plan; full plan will be rolled out shortly.

Goals (through Mc-Stennis program):

- Create the future generation
- Build and sustain strategic relationships
- Communicate and educate (not know by many)

Mc-Stennis funds are matched by the State; they come in as capacity funds in three ways:

- Directly support faculty and researchers' salary, or
- Directly support graduate student, or

- Set aside for competitive research competitions

Modernization of program (future):

- Flexibility is timeless
- With new funds, ‘should’ support applied research in forestry, not faculty salaries
 - Only if supplemental to capacity funds
 - If not competitive, not directed
 - Spread across four major SAF disciplinary areas
 - Forest ecology/biology
 - Measurement of forest resources
 - Management of forest resources
 - Forest resource, policy and administration

Maintain close relationships between FS and university scientists together; develop joint NAUFRP-FRAC Working Group: small enough to get something done quickly to discuss details following FRAC meetings

Broadening the Dialogue about FS Science (Guldin/Barnwell)

Speaker’s recommendations:

- Funding for Mc-Stennis Program
 - \$35.5 M in current budget climate
 - Tie future budget expansions to emphasize areas in the new Mc-Stennis strategic plan
- Prepare holistic Department-wide strategic initiative for forest research that includes both NIFA and FS R&D programs.
 - Funding for R&D
 - R&D budget: \$303 M
 - FIA Program: \$83 M
 - FPL: \$20 M
- Restore research capacity in a balanced way
 - Rebuild capacity to do research by filling vacancies (scientists) and replacing retirees; balanced between both mid-career and early career hires
 - Rebuild capacity to lead research programs by filling vacancies and strengthening ways to get science to resource managers and decision makers

Traditional Ecological Knowledge (Hoagland)

Specific recommendations to Council:

- Invest in the future (identify and address tribal research needs)
- Support our scientists (invest in the future; relationships are important)
- Put special emphasis on funding

Forests for U.S. Water Supply (Brown)

Needed research:

- Population will continue to increase, will put more pressure on water supply
- Climate is changing; water yield will be decreasing
- Disturbances are becoming more frequent and more extreme

These changes will put more pressure on water supply; since forests supply the best quality water, pressure on forest managers to supply water, continue to protect water coming off lands. Responsive to disturbance are site-specific; differences are being ignored or not recognized.

Because climate is changing, changing response observed in past years. What we have learned before is not applicable to the changes today. Great importance to further research in these areas.

Forest Carbon Inventory (Hodges)

Forests are extremely carbon sinks, globally.

Observations:

- Estimates of US carbon pools and fluxes have improved considerably in the past ten years
- Still some regional differences due to frequency of inventories
- Developing an index for M-S formula will require identifying which sources/pools and lands to include
- Markets continue to be much more variable and uncertain due to
 - Uncertainty in policy – particularly in the US
 - Variability in market/policy structure

Speaker's recommendations:

- While quantities are more reliable than monetary values, still must be cautious in allocation
 - Lands to include (all land vs. non-federal land)
 - Carbon pool differences
 - Differences in frequency of plot re-measurement, particularly as it relates to land use change
- Important to consider effect of Harvested Wood Products
 - 19.3 Tg/year in 2013 (Woodall et al. 2015)
- Avoid 'Value-Based' approach

Monetary Valuation of Ecosystem Services (Grala)

Needs and future research:

- Information access
- Research related to valuation
- Regulatory framework
- Identify new market opportunities for ES
- Assistance to landowners
- Develop tools to quantify recreation benefits

Discussion points: Given this session, what is our charge? If the recommendation is to increase funding, have to approach it in a way and treat it as an investment. Show the impact of our research that have been done in those areas; if it is quantified, it's even better. An effort to learn more about ecosystem services. There is an executive order to develop an ecosystem strategy.