

USDA Forest Service Research and Development Update

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Forestry Research Advisory Council

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Outline

- Agency Focus Areas
- FY 2016 President's Budget
- FIA
- Key Agency Issues
- Key Accomplishments
- Science Capacity
- Research & Development Survey
- Questions

Agency Focus Areas

- **Wildland Fire Management:** Provide foundational science, modern decision tools and participate in collaborative decision making with our partners
- **Communities:** Use all available research tools to work with government, private, and non-profit partners to leverage agency partnership with the Forest Service.
- **Inclusion:** Accomplishing our work in an environment with diverse ideas and an inclusive culture.
- **Ecological Restoration:** Explore new ways of working together internally and with adjacent land managers and property owners, to deliver priority restoration work, implementing projects that are integrated, collaborative, and part of an all-lands.
- **Safety:** Safety is a core value of the Forest Service

BUDGET



R&D FY 2016 Enacted Budget

- The FY16 enacted budget for R&D is \$291 M, a decrease of \$5 M from FY15 enacted levels.
- Congressional direction in FY16 calls for funding the Forest Products Laboratory (FPL) at \$27 M, a \$7 M increase from FY15 levels.
- In the FY16 enacted budget, \$75 M is directed to FIA an increase of \$5 M over FY15.
- The overall decrease in research funding coupled with the congressional direction for FIA and FPL results in a decrease of \$17 M from FY15 enacted levels for all other research programs.
- Continue to support the Priority Research Areas (Watershed Management and Restoration, FIA, Forest Disturbance, Bioenergy and Biobased Products, Urban Natural Resource Stewardship, Nanotechnology and localized needs research).

R&D FY 2017 President's Budget

- The FY17 President's budget for R&D is \$292 M, an increase of \$1 M from FY16 enacted levels **HOWEVER,**
- \$3 M is designated to support the Joint Fire Sciences Program (JFSP).
- JFSP is a budget line item (BLI) typically under Wildland Fire Management but is included under the Research BLI in FY17.
- Net result is a decrease to the Research BLI by \$2 M
- FY16 congressional direction for FPL is not included in the FY17 President's Budget.
- In the FY17 President's budget, \$77 M is directed to FIA an increase of \$2 M over FY16.

Agency Discretionary Budget

Funding Source	FY2014 Enacted	FY2014 Enacted	FY2016 Enacted	FY2017 President's Budget	Increase or Decrease From PB
FS Approps. <i>(Millions)</i>	4,897	5,073	5,680	4,865	(815)
NFS Approps. <i>(Millions)</i>	1,496	1,494	1,509	1,483	(26)
R&D Approps. <i>(Millions)</i>	293	296	291	292	+1
State & Private Forestry Approps. <i>(Millions)</i>	230	233	237	225	(12)

R&D Budget (2012 – 2016)

⁸ Funding Source	FY2012 Enacted	FY2013 Enacted	FY2014 Enacted	FY2015 Enacted	FY2016 Enacted
R&D Appropriation	295	280	293	296	291
Other Funding Sources					
National Fire Plan	22	21	20	20	20
Joint Fire Science Program	7	7	7	7	7
Forest Resource Information and Analysis (S&PF)	5	5	0	0	0
Grand Total	329	313	320	323	318

FY2017 President's Budget for Strategic Program Areas & Priority Research Areas

*Does not include \$3 M for JFSP

Priority Research Areas	Strategic Program Areas							Total
	Fire	Invasives	Recreation	Resource Management and Use	Water, Air, and Soil	Wildlife and Fish	Inventory and Monitoring	
Forest Disturbances	\$277	\$188	\$0	\$14,588	\$1,906	\$2,987	\$5,104	\$25,050
Forest Inventory and Analysis	0	0	0	0	0	0	77,000	77,000
Watershed Mgmt. and Restoration	1,745	1,134	0	2,812	9,198	5,670	863	21,422
Bioenergy and Biobased Products	231	91	0	10,827	231	0	322	11,702
Urban Natural Resource Stewardship	436	0	1,969	1,033	1,308	0	872	5,618
Nanotechnology	0	0	0	4,318	0	0	0	4,318
Localized Needs Research	18,097	31,514	2,180	54,011	20,552	16,789	729	143,872
Total	\$20,786	\$32,927	\$4,149	\$87,589	\$33,195	\$25,446	\$84,890	\$288,982

(dollars in thousands)

Investment In Partnerships (2012 – 2015)

Fiscal Year	FY2012	FY2013	FY2014	FY2015
Number of Grants & Agreements	649	581	746	577
R&D Grant Funding (\$ Millions)	42.0	38.2	42.6	42.6
% of R&D Budget	13	12	13	13

FIA Strategic Plan



Deliverables from the FIA Strategic Plan

- ***National Woodland Owners Survey:*** Expand the National Woodland Owners Survey to assess how land ownership changes affect land management
- ***Improved Forest Carbon Estimation:*** Reducing the uncertainty of how much carbon is emitted and sequestered by our forests (includes inventory of urban forests and interior Alaska)

Deliverables from the FIA Strategic Plan (cont.)

- *Increased Investments in Remote Sensing Research and Change Detection:* Integrate remotely sensed and ground information for the FIA of interior AK & keeping 5-7-yr. cycle in South.
- Improved Forest Products Monitoring.
- Improving On-Line Access to FIA Data.

National Center for Natural Resource Economics Research

In FY15, the Center collaborated with Federal, State, and private partners to address nationally significant questions related to three projects:

- Updated benefits transfer values for outdoor recreation and appropriate application,
- Identification and removal of barriers to access recreation on public land for Latinos
- Multiple perspective assessment of water rights by user groups in the Big Horn Basin.

In FY16, the Center will expand its work in ecosystem service evaluation and mitigation to address management and policy decisions and commit 10.25 FTEs to the work.

FS R&D Participation in Key Agency Issues

- Sage Grouse
- US/EU Wood Pellet Discussions
- Upcoming Carbon Negotiations
- Billion Ton Report
- Inventory Monitoring & Assessment Effort
- Whitenose Syndrome
- Making a Case for Restoration
- Ecosystem Restoration
- US/Canada Collaboration

Key Accomplishments

- ❖ Released the Resource Planning & Assessment Report
- ❖ Released the National Climate Assessment Report
- ❖ Expanded FIA & Wildlife Programs into Urban Areas
- ❖ Urban Forest Sustainability Reported released
- ❖ Released USDA Agroforestry Report
- ❖ Released of the Effects of Drought on Forests and Rangelands in the US (Assessment report)
- ❖ The US Forest Carbon Accounting Framework: Stocks and Stock Change, 1990-2016

Research & Development Science Capacity (Senior Executive Service)

- **Rocky Mountain Research Station Director: John Phipps**
- **Sustainable Forest Management Research Director: Toral Patel-Weynand**
- **Inventory Monitoring & Assessment Research Director: Linda Heath**

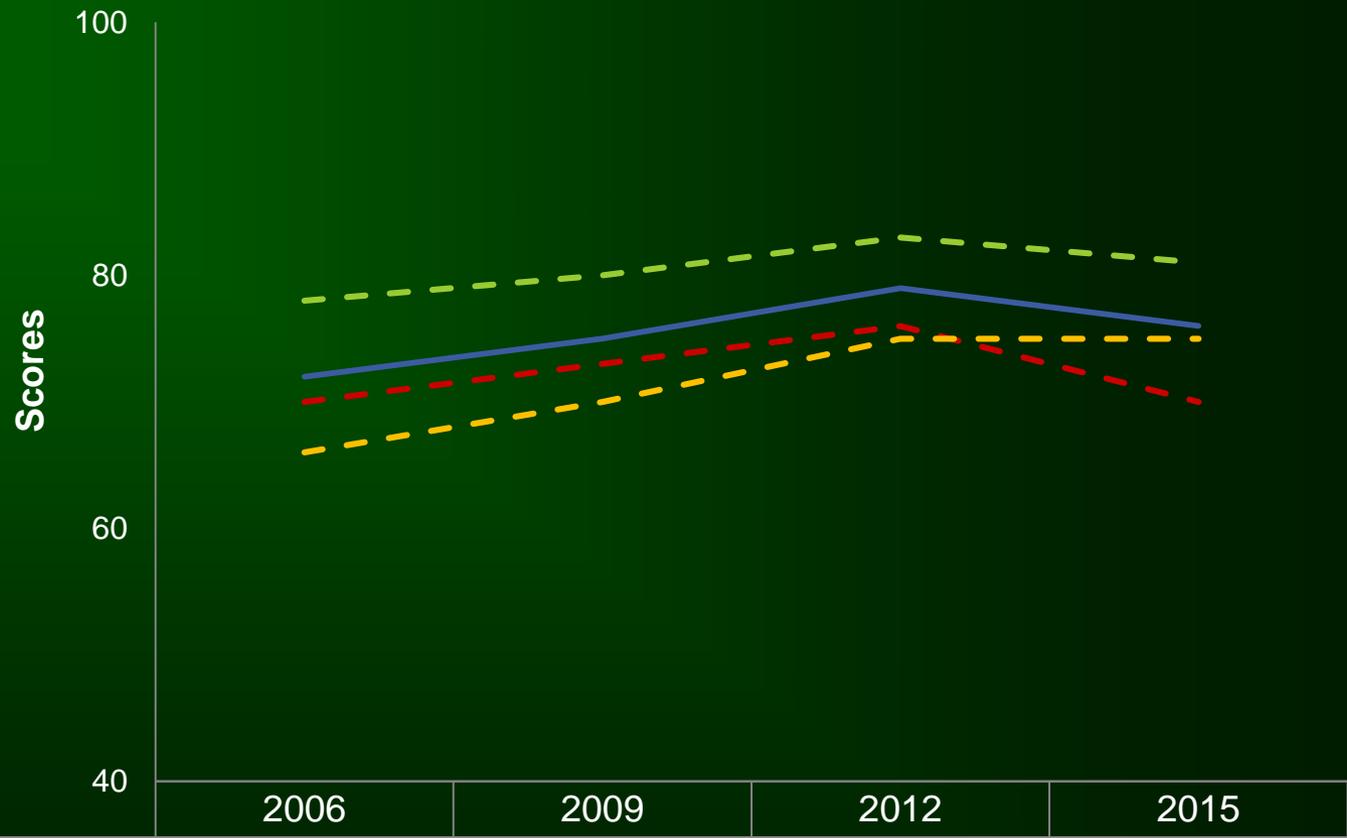
WO Research & Development Science Capacity (Non-Senior Executive Service)

- **Communications Nat'l Program Leader: Lily Whiteman**
- **Social Science Nat'l Program Leader: Kenli Kim**
- **Climate Change Nat'l Program Leader: Anne Marsh**
- **National Engineer: Chris Campbell**
- **Resource Information Manager: Don Cannatti**
- **Monitoring & Remote Sensing National Program Leader: Jim Elwood**
- **Aquatic Biology & Ecology National Program Leader: John Rothlisberger**

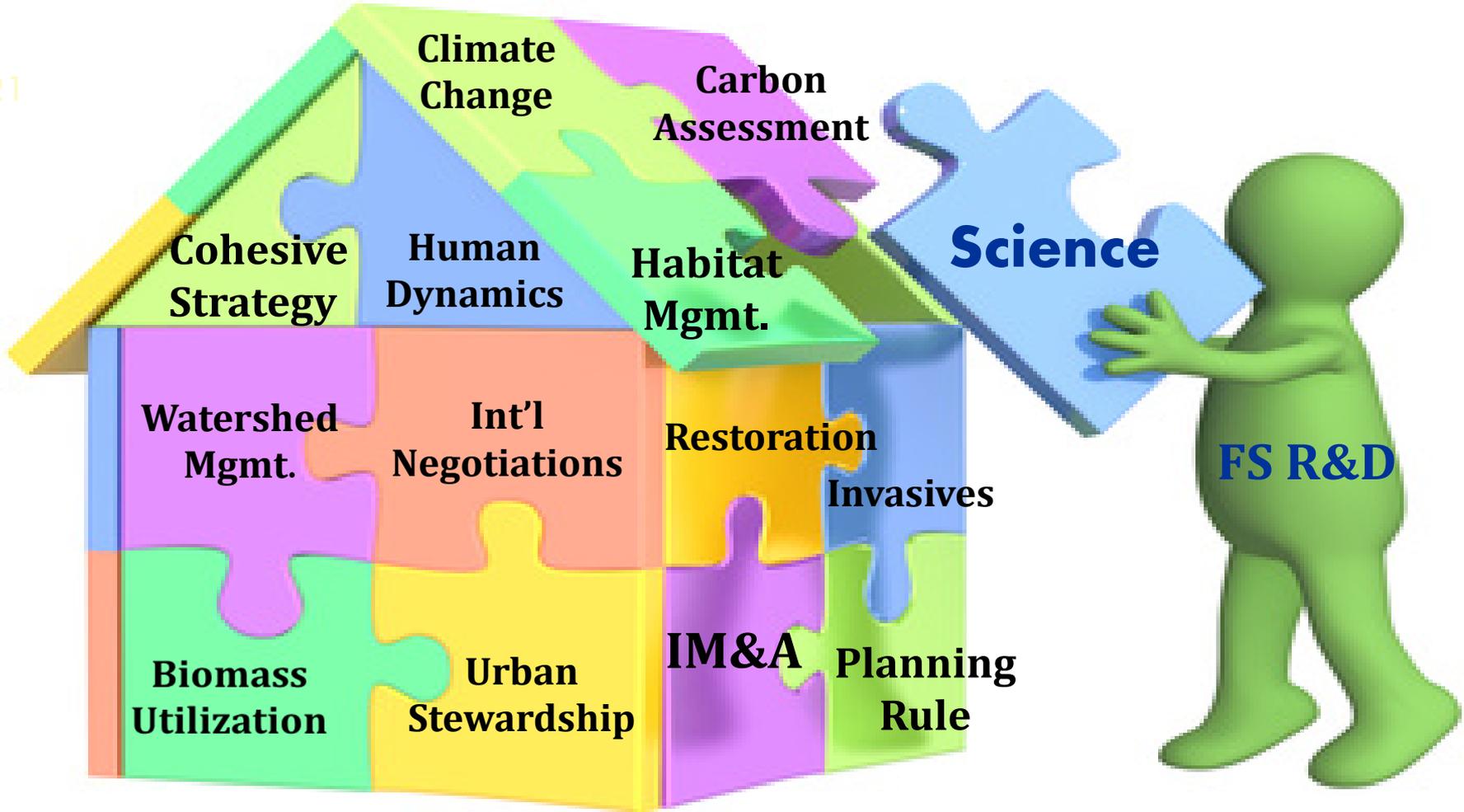
Partnerships

- Land Grant Universities and Colleges
- Non-Land Grant Universities
- The American Forest Foundation
- Tribes
- NGOs
- The Cities of Baltimore, New York, and Los Angeles
- National Association of State Foresters
- Forest Industry
- International Partners and Collaborators
- Other USDA Agencies

Customer Satisfaction Over Time for FS R&D



	2006	2009	2012	2015
Customer Satisfaction Index	72	75	79	76
Overall satisfaction	78	80	83	81
Compared to expectations	70	73	76	70
Compared to the ideal	66	70	75	75



US Forest Service Research and Development

Questions?