A View from NAUFRP on Evolving a New Forestry Research and Funding Model

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Change is the one constant in the forest environment and that change has been occurring at unprecedented rates. In a recent publication, the US Forest Service listed 15 key findings from an assessment of the status and trends of natural resources on United States forest and range lands (USFS 2007). Some of the trends identified are being driven by changing demographics and public preferences, others have been triggered by structural changes in markets associated with increased globalization, while still others have resulted from the intensity and scale of recent fires, insect outbreaks, and the impacts of invasive species. Many of these issues have existed for some time, but they have now grown into rapidly changing, extremely complicated, and multidimensional issues.

Recognizing the changing social, political, ecological, and business environments, the National Association of Forest Resources Programs (NAUFRP) working in conjunction with the Cooperative State Research, Education, and Extension Service (CSREES) and the US Forest Service Office for Research and Development convened a national workshop to identify the directions for future natural resources research and the sources of funding needed to support that research. It was evident from the workshop deliberations that a compelling new natural resources research agenda built around new ideas, real societal needs, and the potential for high impact is sorely needed (Brown et al. 2007).

Outcomes of the workshop were grouped under three major headings: major emergent themes, additional themes, and crosscutting issues (DeHayes et al. 2006; Brown et al. 2007). Workshop participants identified a new science of integration; ecosystem services; human attitudes and behaviors; conflict, uncertainty, and decision-making; and technology advancements and applications as the major emergent research themes. There was less, but still strong, support for new applications for forests and products and urbanization as additional themes warranting further consideration. Global change, alternative energy, biodiversity/complexity, invasive species, carbon fluxes, water and air quality, ecological planning, and recreation and tourism were identified as cross-cutting issues to be addressed through the lens of these new knowledge and science themes (DeHayes et al. 2006).

Possibly the most important insight coming from these deliberations is the need to couch new research in the context of a new science of integration and the inherent recognition that emerging research topics are complex and multidimensional, which must be addressed in a holistic manner through concerted efforts. Looking ahead then, the greatest opportunities and needs lie in the formulation of research efforts and the development of research teams that will seek integrated insights using a variety of tools and divergent expertise. We must address issues from all angles and develop the new and innovative approaches that will be needed if we are to take a truly integrated approach rather than the more typical juxtaposition of individual approaches.

It follows then that, if we need a new model for the way we approach research, we will likely need a new approach to the way that research is funded and perhaps in how our research institutions are structured with respect to one another. Fortunately, there has been some movement in the funding direction in recent years with some federal funding agencies setting aside at least a portion of their funds for “multi-investigator integrated research.” Similarly, we have seen the growth of public–private partnerships in funding research in certain thematic areas. We have also seen growth in foundation funding for research, especially research that includes the social dimensions. Our traditional sources of university natural resources research funding are being eroded by changes in corporate structure and objectives, by the horrendous annual costs of wildland fire suppression, by a relatively stagnant appropriation to forestry research through the federal formula fund process, and the growing pressure at the state level to divert an ever increasing portion of state general funds to cover the costs of essential services and entitlement programs. In short, natural resources research is being squeezed from all sides by static to dwindling funding at a time when it needs to grow and move in some new directions.

In his keynote address to the workshop participants on the topic of funding forestry research, Dr. John Gordon, former Dean of the Yale University School of Forestry and Environmental Studies, challenged the group to rethink who benefits and who pays. Based on the workshop discussions, the following recommendations were formulated: (i) greater participation of private landowners and the philanthropic donor community, (ii) greater participation of agencies at different governance levels, (iii) the legal and practical feasibility of developing multi-organization “centers” for research and outreach should be explored, (iv) the myriad pieces of inventory information should be brought together in one framework, (v) a strong federal competitive grants program should be undertaken, (vi) McIntire-Stennis program funding should be increased by 25% and a competitive program of approximately $10 million be established (http://www.naufrp.org), (vi) regular regional research agenda-setting meetings should be instituted to coordinate annual and long-term requests for funding.

In summary, it is essential that the broader based forestry and natural resource community recognize that evolving circumstances require that we take a fresh look at how we organize, conduct, and fund research. As noted in Brown et al. (2007), “we are on the cusp of a new era of
forest-focused research, but it will take a lot of work to be successful. Those who allocate funds for forest research still need to be convinced that such research is critical and they must be convinced that we are building capacity for quality research that will make a difference.” We need to craft and communicate together a compelling reason for change, one that will compel governments at federal and state levels along with the private sector to invest in natural resource research as a key to successfully navigating through future change and complexity.

**Literature Cited**


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