On behalf of the National
Association of State Foresters, I am pleased to have the opportunity to testify before you today on the past, present, and future of the Research and Development Program of the USDA Forest Service. NASF is a non-profit organization that represents the directors of the state forestry agencies from the states, U.S. territories, and the District of Columbia. State Foresters restore, manage, and protect state and private forests across the U.S., which together encompass two-thirds of our nation's forests.

The Research and Development Program of the USDA Forest Service, the largest forestry research organization in the world, is integral to the advancement of the science of professional forestry. States, universities, and private industry work in coordination with the Forest Service to plan, implement, and publicize forestry research, covering everything from forest products utilization to urban forestry.

Coordination

With the reality of flat or even decreasing federal funding available to forestry research, it is important that the Forest Service focus on the highest research priorities and carefully coordinate research activities with states, universities, and the private sector. Each type of research organization has its strengths and weaknesses, and we must recognize these differences when coordinating activities.

First, I wish to highlight several examples of coordination that led to successful research projects. The Forest Inventory and Analysis Program (FIA) has been a successful cooperative venture between the Forest Service and the state forestry agencies for nearly 70 years. Our state agencies are an integral component of the program and not just users of the data. We now help collect and analyze data, as well as work with partners to deliver the results. The information that the FIA program provides to us and other users drives many of the decisions we make at the state level. FIA provides us with the "pulse" of the forests, including such important factors as forest health and sustainability, so that we can make more informed policy decisions in our states and at the federal level. NASF commends the Forest Service for bringing FIA users together regularly to seek input on the program from those with the closest ties to its application. We applaud the development of a new FIA strategic plan and encourage the Forest Service to work more closely with states as partners in the program, rather than just users.

Loss of forest cover due to development has become a top issue in recent years and has served to galvanize many dissimilar organizations together. The Forest Service worked closely with state forestry agencies to publish a recent study, known as Forests on the Edge, that identifies watersheds where private forestland is most threatened by development. The report highlights a combined area of more than 44 million acres of private forestland where housing density is expected to increase dramatically by 2030. Studies such as this have brought together diverse interests to conserve private forestland. Under the authorities of Title IV of the Healthy Forests Restoration Act, the Forest Service is carrying out research on how silviculture can be used to improve forest health and mitigate the negative effects of insects and diseases. The results of these "applied

silvicultural assessments" can be used by the states and others when working with private landowners. We encourage the Forest Service to work closely with universities, cooperative extension, and state forestry agencies when developing a plan for the dissemination of this information. Technology transfer is an important piece of this plan.

A recent report by the National Research Council entitled National Capacity in Forestry Research highlights the need for the forestry research sector to adapt to changes in the forestry establishment. The Southern Forest Research Partnership is an excellent example of a new model of cooperative forestry research. This new partnership brings together universities, federal and state governments, non-governmental organizations, and industry to coordinate research and technology transfer activities, attract public and private funding opportunities, and reach across organizational boundaries. Current research priorities of the Southern Forest Research Partnership include biomass energy production and carbon sequestration, the economic value of southern forests, and the forest's role in providing clean water. I encourage the Forest Service and other research partners to look to this partnership as a successful model for moving forestry research forward.

I believe it is important to closely examine the current structure of forestry research coordination among the Forest Service, states, universities, and the private sector. State Foresters wish to see more transparency to highlight the mechanism in place and the method for decision making. Due to this lack of transparency, forest research at the university level can sometimes be perceived as overlapping and showing conflicting priorities. A well-understood process would go a long way to clarifying the coordination among universities and make better use of federal funding opportunities.

Technology Transfer

The state forestry agencies have for nearly a century been delivering the results of forest research to those who need it most: landowners, foresters, communities, and policymakers. We accomplish this through a variety of mechanisms, including technical assistance, education, and outreach. As we all know, research is of little value if the information and lessons learned are not delivered to those outside the realm of research. State Foresters feel strongly that technical research should be relevant to its applied use. After all, it is the applied use that ultimately results in the usefulness of research. We encourage the Forest Service to work with the on-the-ground users of forestry research when determining research priorities and designing new research projects. Successful research begins and ends with the users. As both users of applied research and providers of technical research, state forestry agencies are poised to become more involved with the Forest Service and other research partners to provide additional user input into the agency's research planning process.

Looking to the Future

The Forest Service, through its Research and Development Program, has established a successful track record of research activities focused on issues within the National Forest

System and elsewhere. Years of research and development on silvicultural systems for managing timber in the National Forests enabled the agency to become a leader in efficient timber production over the past several decades. As the focus of the agency has now shifted somewhat away from timber production on the National Forests, so too should research priorities. We encourage the Forest Service to continue this trend and focus research priorities on growing issues, such as carbon sequestration, ecosystem services, non-timber forest products, and conservation of private lands.

The case for an increased focus on State and Private Forestry issues is compelling: Twothirds of the nation's wood and drinking water come from private lands owned by more than 10 million landowners. These 350 million acres of private forests comprise 60 percent of all forestland in the country. The southeastern United States is the worlds greatest producer of timber and has a significant impact on the regional, national, and international economy. Timber, at $22.5 billion annually, is the nation's second largest crop, behind only corn. We believe these key facts will shape the future of forestry in this country over the next century.
With an increasing population, especially in urban areas, Americans are becoming more aware of the important role forests play in contributing to our high quality of life. From ozone reduction and cooling in urban areas to clean water and recreational opportunities in suburban and rural areas, our nation's forests - two-thirds of which are privately owned - provide a variety of public benefits to society.

These public benefits,
collectively known as "ecosystem services," are the natural processes and outputs that benefit us as a society, most of which are either too complex or expensive to replicate artificially. NASF and the Forest Service have been working together and with other partners to develop markets for trading these ecosystem services and to help private landowners enter this marketplace. Before credits for ecosystem services can be established and traded, a value for each type of service must be determined. NASF believes the Forest Service Research and Development Program must take a lead in this initiative.

Agriculture Secretary Mike Johanns spoke at the White House Conference on Cooperation Conservation about the need to promote markets for ecosystem services and the formation of the new Market-Based Environmental Stewardship Coordination Council. He stressed the importance of these markets in helping to maintain working lands across the country. We support Secretary Johanns and look forward to working with USDA to ensure these markets become a reality.
The damage done to forests by hurricanes and other natural disasters has been especially apparent this year. Forests in many southeastern states from Texas to Florida were hit hard by several strong hurricanes over the past 4 months. Extensive damage to these forests has put disaster recovery and restoration needs in the national spotlight. More attention, however, is needed for research opportunities relating to these and other catastrophic natural disturbances. One of the greatest challenges facing State Foresters in these affected states is convincing landowners to restore their forests and not to subdivide and sell for development. We encourage the Forest Service to explore research into

landowner attitudes, motivations, and trends in response to catastrophic natural disturbances. This research could be used to guide our outreach, education, and incentive work with these private landowners.

Successful recovery from large-scale natural disasters, whether storms or fires, requires viable markets for timber removed from these disturbed areas. The Forest Products Laboratory, located in Madison, Wisconsin, has been working to solve utilization problems for more than 90 years. Researchers at the Forest Products Laboratory are finding new and creative uses for the small diameter-timber that is removed in hazardous fuel treatment projects. This technology is also applicable to the range of material removed from hurricane damaged forests, as well as areas damaged by insects and diseases. Without markets, many private landowners are simply unable to complete the much-needed restoration work. Our nation's private forestlands are poised to make a contribution to the national energy needs. However, further research is needed to better understand the impact and opportunity of biomass energy from private forests. The Forest Products Laboratory fills a pivotal role in the development of these markets and therefore needs adequate funding to fulfill this responsibility. NASF supports the expansion of the forest biomass research program throughout the Forest Service.

Conclusion

The Forest Service Research and Development Program has a long and successful history of supporting on-the-ground forestry through technical research aimed at the most pressing forestry issues. States, universities, and the private sector work closely with the Forest Service research program to coordinate research activities and priorities. The future success of the program will depend on its ability to focus resources on those problems most pertinent to society. Markets for ecosystem services, clean water, and climate change are three examples of forestry where the Forest Service should focus its efforts. NASF will continue to work closely with the Forest Service to ensure its excellent technical research is closely aligned with real-world applications. Together with universities and the private sector, we have the ability to lead forestry research into the 21st Century.

Thank you for the opportunity to testify today. I am pleased to answer any questions you may have.